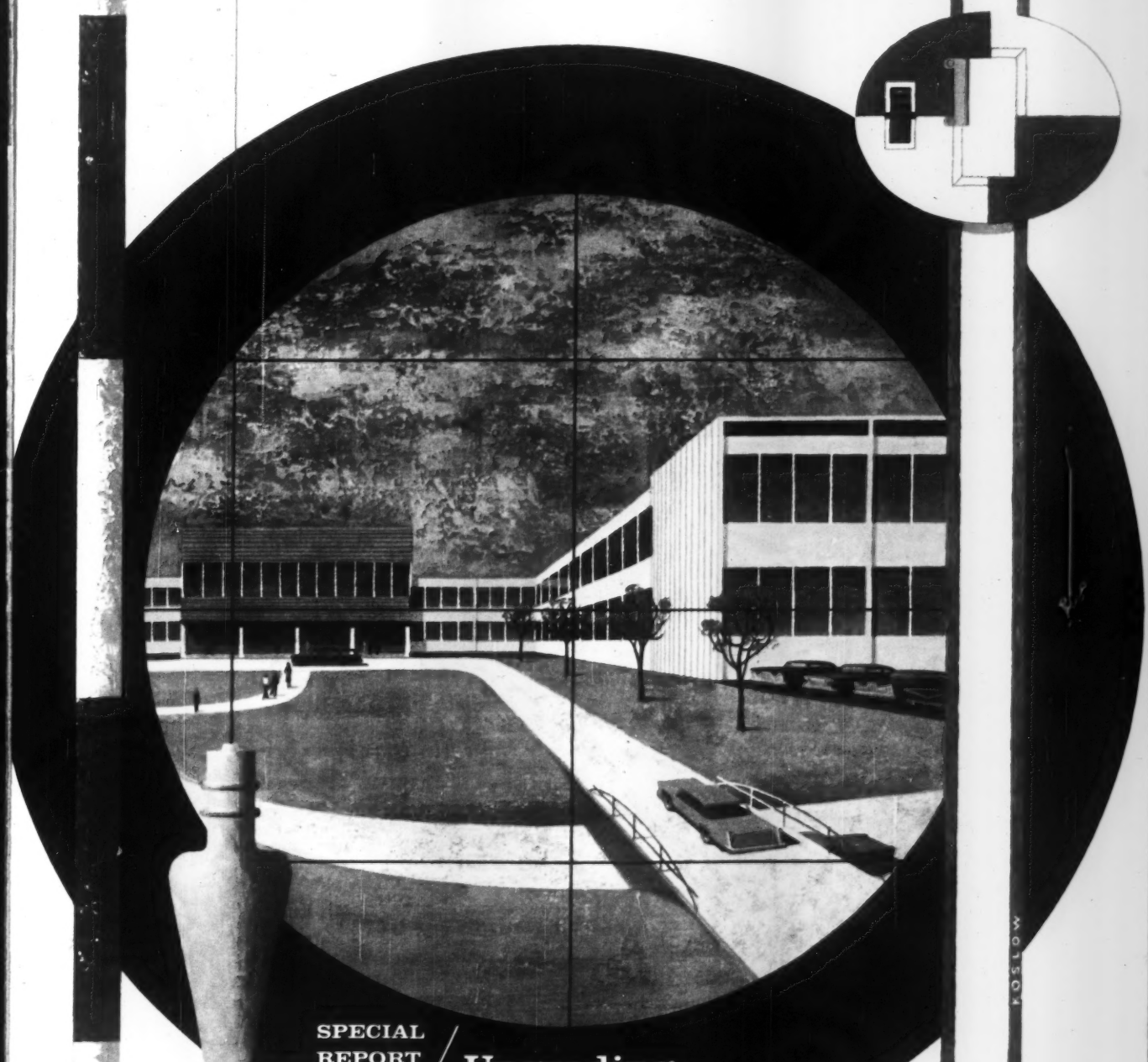
DUN'S REVIEW
AND MODERN INDUSTRY

March 1961 75c

- What Business Wants from Kennedy
- Myth of the Magic Numbers
- How to Sell the Health Market



SPECIAL REPORT

Upgrading Industry's Plant

BRADSTREET PUBLICATION

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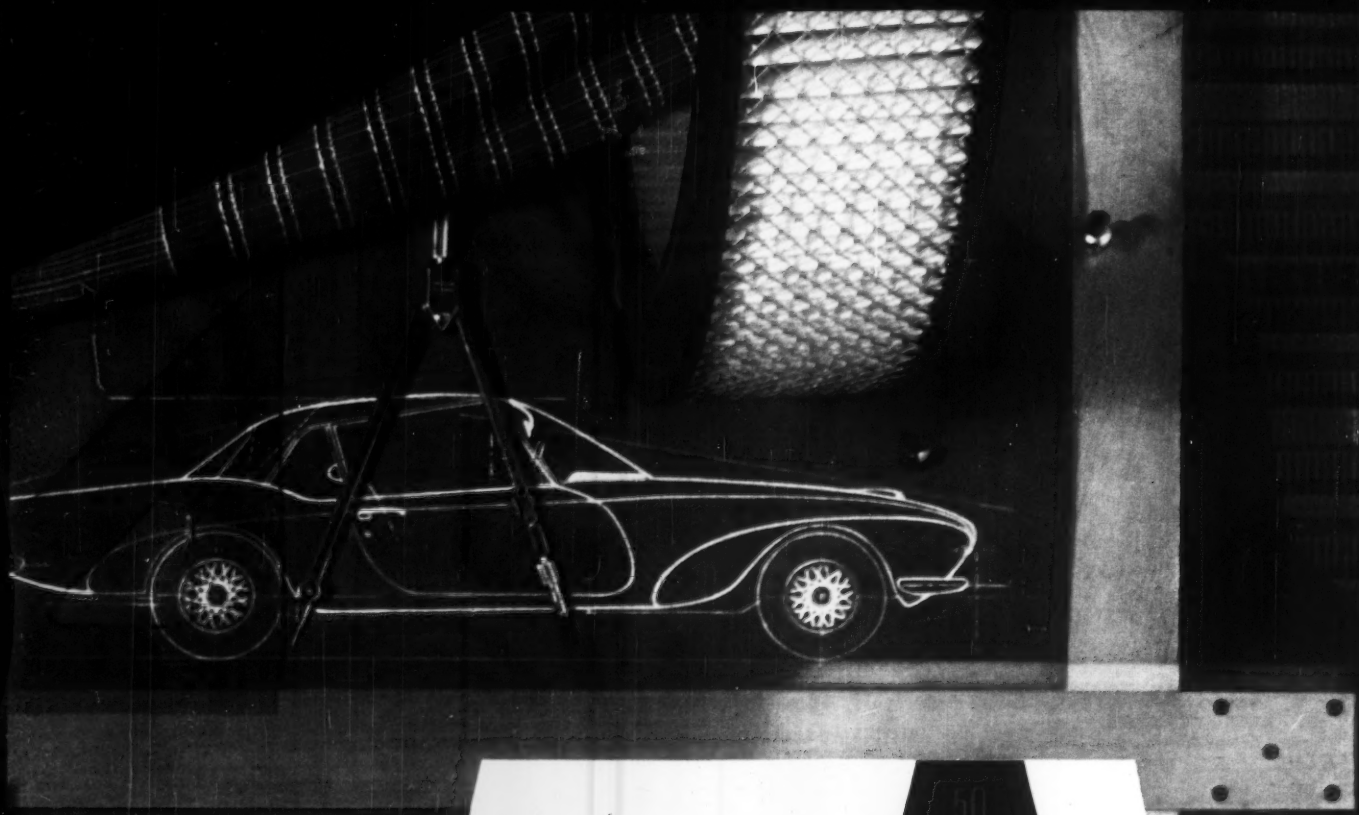

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SPECIAL BUSINESS SURVEY:

HAS THE RECESSION HIT BOTTOM?

Four out of every five businessmen believe that the current recession has hit bottom or that the nation already is on the road to recovery. The surprising optimism of the nation's business leaders was uncovered by a special poll taken over the wire network of DUN & BRADSTREET late in February. All told, some 1,100 of the nation's leading manufacturers, wholesalers and retailers across the nation were queried in the survey.

More than one in four of the executives interviewed feel that the economic recovery is well under way. And even those businessmen who look for a continued deepening of the recession expect business to show an improvement by the end of June.

Businessmen surveyed were asked a series of questions designed to furnish a comprehensive, up-to-the-minute picture of American business. In face-to-face interviews with DUN & BRADSTREET field representatives, they discussed the trend of their own sales and purchase orders, as well as the over-all state of the economy.

Manufacturers in particular were optimistic. No less than 37 per cent of them reported an upturn in their sales since the start of the year, while 36 per cent stated that sales had taken a "sideways" movement; the remaining 27 per cent said that their sales were still falling. The experience of manufacturers of non-durable goods was slightly more favorable than for durable goods producers. Sales of wholesalers and retailers tended to lag behind those of manufacturers—often as a result of bad weather.

On the recession itself, 81 per cent of the executives expressed the opinion that the worst is over. This figure broke down into 28 per cent who regarded the recession as already a thing of the past, and 53 per cent who regard it in the leveling off stage. Many who saw it leveling off noted a pickup in customer inquiries.

How reliable are these opinions? Businessmen have been reliable prophets of economic upturns in the past. Currently, they show exactly the same frame of mind that they demonstrated in the closing stages of the recessions of 1949, 1954, and 1958. In samplings taken then, businessmen were able to anticipate upturns in business conditions well before these signs could be measured statistically by tangible indicators.

Many businessmen find the current economic picture "selective," a "profit and unemployment recession," or "mild." There was an undertone of criticism that the degree and extent of the business set-back had been overplayed in political comment, and that such adverse publicity might tend to frighten consumers.

A number of important steel producers reported a change. Sales, they said, had either hit bottom or had started to rise, particularly within the past few weeks. Typical comment: "Sales are leveling off and showing signs of improvement." A primary producer of aluminum remarked, "We feel some optimism over the possibility of an upturn in the second quarter. Customer inventories are at bottom."

A heavy equipment manufacturer noted that "the downtrend over the past year caused corrections which took some time to make. These have now caught up." And one of the country's leading diversified industrialists comments, "Two weeks ago, the comment would have been that the recession was worsening. Today, it is turning the other way."

Certain retailers, however, sounded a note of caution. By and large, these were concerned over the fact that Easter this year will fall at an early date, a handicap which can be offset if a mild spring occurs. Meanwhile, their winter sales have felt the impact of bad weather. And the consumer? Said one chain department store head: "People are still buying, but they are more conscious of the price vs. quality angle."

Because of its importance, this special late feature appears in place of "Businessmen's Expectations." Readers who desire a copy of the regular department may obtain it by writing to: Editor, DUN'S REVIEW, 99 Church Street, New York City.

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DUN'S REVIEW AND MODERN INDUSTRY

VOLUME 77 NUMBER 3

March 1961

Central Edition

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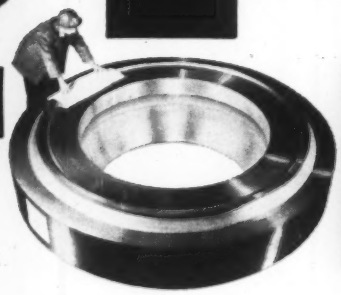

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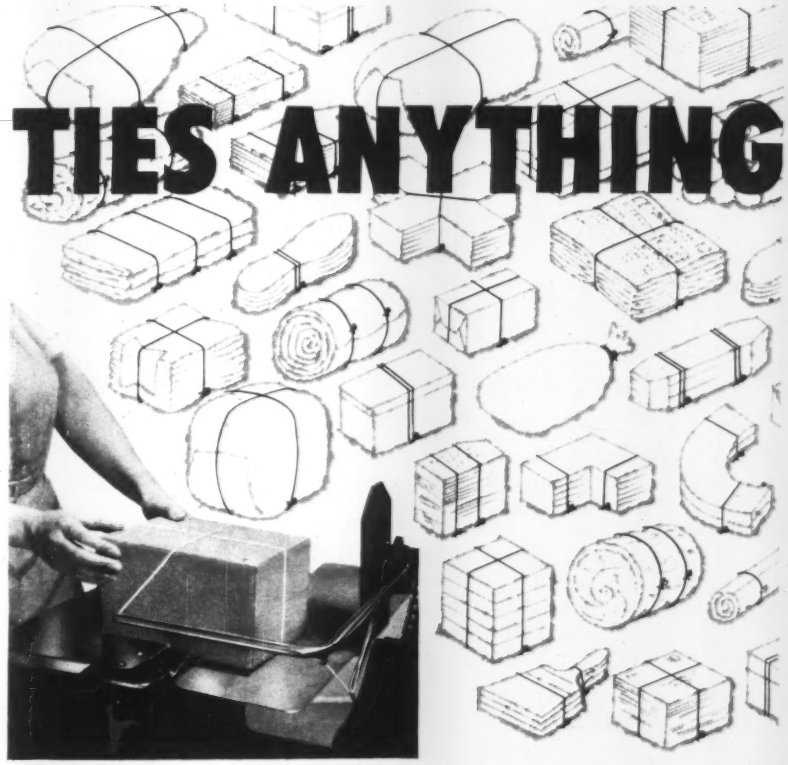

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The Trend of BUSINESS

SALES: *Early Easter will affect Spring totals*
OUTPUT: *Slow, gradual rise expected soon*
INVENTORIES: *Liquidation will slacken in months ahead*
FAILURES: *January tolls higher than any month in past two years*

WITH a tough winter behind them, business men can soon start looking for signs of a thaw. Still, it will probably be June or later before the economy really shakes off the symptoms of recession.

Retail sales, weather permitting, will stage a comeback at Easter. Compared with last year, though, dollar volume won't show much gain until May or June. This will spell a sluggish pickup in manufacturers' orders and sales, as well as in industrial production. By summer, as the rise gains momentum, the rate of inventory liquidation will slow down.

Durables will power the rise in total industrial output, as they did its decline.

Primarily responsible for pulling down the Federal Reserve Board's Index of Industrial Production to its current low (about 10 per cent below January 1960's pre-recession peak), durable goods production will start pushing the Index up gradually during the next month or so.

Steel mills say that their customers' stocks of steel products are at extremely low levels—as they have been for several months. There hasn't, however, been much of a recovery in new orders from the depressed levels of late 1960. Most users have stepped up their buying somewhat, but this has been offset by deferrals and cancellations from the auto industry.

Neither March nor April will see much improvement. By May, though, new orders will probably be picking up speed, nudging steel production to successively higher levels. Gains will be a bit more extensive if spring sales of new passenger cars are successful and if volume in major appliances stages a healthy upturn. Better-than-expected business could encourage many steel companies not to make any further cuts in plans for 1961 spending on new plants and equipment.

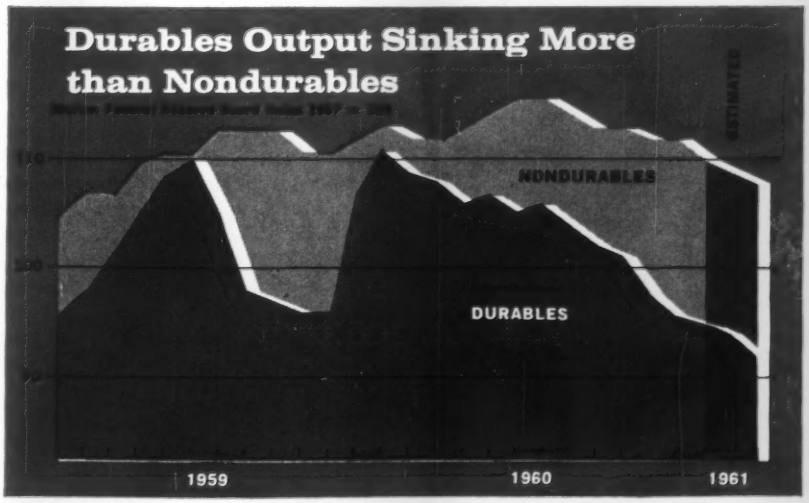
There's not much chance that auto output will move up from current levels in the months immediately ahead.

Car sales have been bogged down by bad weather and the rising unemployment in many areas; dealers' stocks are at near-record levels. Under the circumstances, it's not surprising that auto production is expected to stay close to current levels until at least mid-spring. Even then, only moderate gains are likely, unless there is a real upsurge in early spring sales. Auto makers have been hearing, happily, that consumers seem less interested in the compacts than a year ago, and are more taken with larger, higher-priced models. This could mean a dip in the compacts' share of the market, which ran last year to about one-third.

Even though over-all industrial production will not gain much support from auto output before midyear, it will be propped by modest production increases in farm equipment, machinery, steel, and possibly major appliances. Utilities, food products, apparel, and textiles will also show more strength.

A turnabout is due in orders for manufacturers' durables.

Orders for manufacturers' durables have been off the past several months. Any moment, though, they will start picking up again. The rise will be gradual, propped in good part by defense orders and slightly higher orders for machinery, farm equipment and —eventually—major appliances. New orders for durable goods are currently the smallest since late 1958. Still, they are a lot more satisfactory than they were in the 1953–54 and 1957–58 recessions.



MANUFACTURING OF DURABLES *has fallen off more in recent months than production of non-durables. A gradual pickup is expected to get under way soon.*

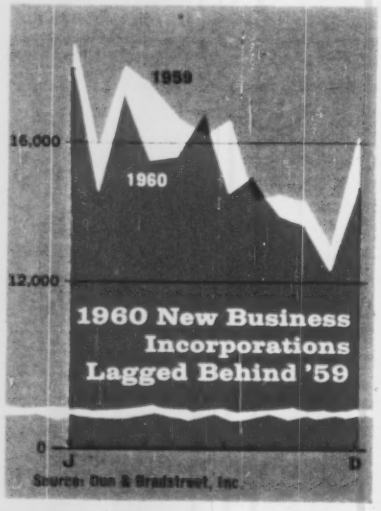
In both durables and non-durables, the pace of inventory liquidation will slacken through the summer. No actual build-up is probable until some time during the last quarter of the year.

Retail trade will soon get livelier, but volume will cling to year-ago levels through mid-Spring.

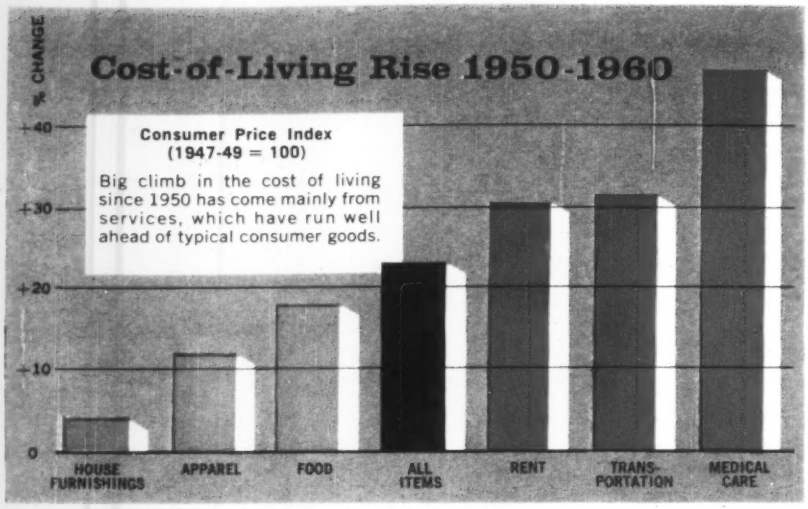
Easter is earlier this year—and the unemployment rate is higher. Unless retailers are blessed with spring-like weather during the weeks ahead, there is little chance that retail trade this Easter will show much of a gain, if any, over Easter 1960. Retailers are hoping, though, that consumers who stayed indoors because of the bad weather in January and February will start catching up on their shopping. Likeliest purchases (the retailers hope): furniture and major appliances.

But since shoppers are getting ever more cautious and selective, storekeepers will extend spring sales promotions and play up reduced prices, especially on furniture and big-ticket appliances. No year-to-year gains in appliances are expected until late in the second quarter, however, considerably after increases show up in furniture, floor coverings, draperies, and linens.

Through the end of April, any comparison of apparel sales with a year ago will be distorted because of the different Easter dates. After that, moderate year-to-year gains are probable, with women's and children's merchandise doing a little better than men's. Over-all retail totals, of course, will depend on new and used passenger car sales.



NEW INCORPORATIONS *in early 1961 continued to run behind a year earlier, but an upturn is probably on the way.*



AS IN THE PAST DECADE, *any rise this year in the Consumer Price Index will stem from higher prices on services. Source: U.S. Bureau of Labor Statistics.*

No real gains in consumer credit outstanding are expected before May or June.

Slow sales of passenger cars and major appliances will mean a dip in consumer installment credit through March and April. But even if the spring rise in car sales is disappointing, and the pickup in appliances tardy, installment credit will start rising again, slowly but surely.

Relatively high levels of unemployment will be the principal drag on retail trade in the weeks ahead. It will tighten the reins on earnings and personal income and make consumers more cautious, even though declines in income will be modest.

But a gradual rise in industrial production will bring a slow dip in the number of unemployed. Good weather in March and April would stimulate retail trade, which would, in turn, spur a faster pace in industrial production—but that, of course, depends on the weatherman.

Cost-conscious shoppers will not find many price increases this spring. Any rise in the Consumer Price Index will be due to higher prices on services. A sizable deficit in the Federal budget, however, could easily stimulate inflation. If it were financed through the commercial banks, too much money would be pumped into the economic system. The effects, though, would not be felt until the end of the year, possibly not until 1962.

Livelier business activity in the second quarter will mean a modest pick-up in corporate profits.

Profit margins will widen as business gains some momentum later in the year. There will still be a lot of excess capacity in many lines, but fewer cutbacks in spending for new plant and equipment. As a matter of fact, the current decline in these expenditures is likely to halt before the year is out.

The recent drop in such spending will take its toll on industrial construction in the coming months. It will, however, be offset by more building of offices, garages, warehouses, and stores, plus the rise in public construction.

Home builders are counting on lower costs and easier money to spur new housing starts this spring. Though an increase is likely, it will be modest, and they face the same problem as retailers: high unemployment levels and consumers' qualms about the recession. Even a small gain, however, could boost over-all construction totals above last year's. END

This report was prepared in the Business Economics Department, DUN & BRADSTREET, INC., by John W. Riday.

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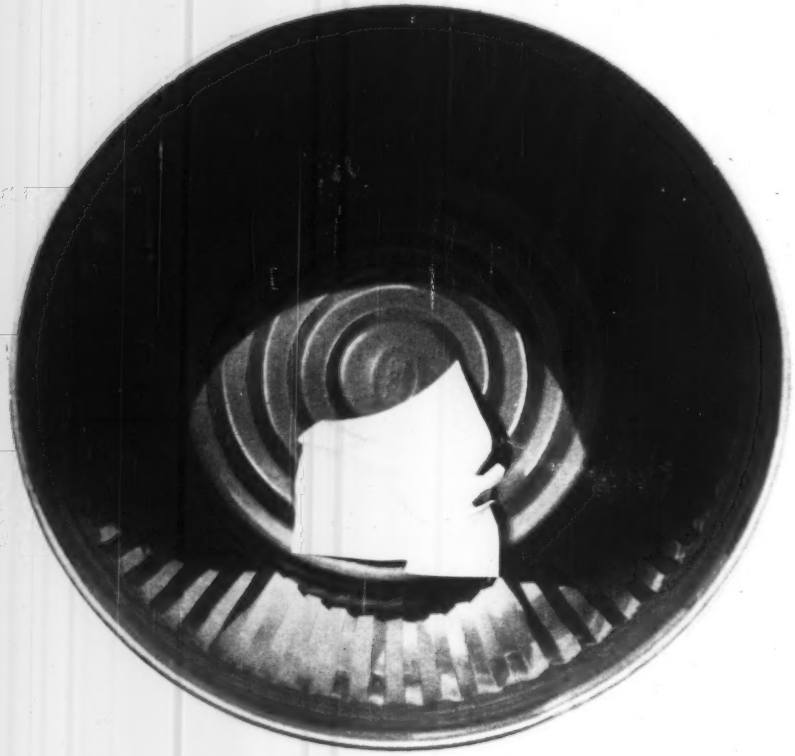

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AIR CONDITIONING—THE CLIMATE OF EFFICIENT BUSINESS

Letters to the Editor

A Bicycle Economy?

To the Editor: "Why Britain Looks Good to U.S. Investors" (December) carries a blurb which mentions the lure of "skilled labor at sensible wages." Above it is a photograph of skilled workers leaving a plant on foot and on bicycles. Only one automobile is in sight. The implication seems clear that "sensible wages" include the price of a bicycle but not of a car.

This may be good for the U.S. investor, but what about the U.S. worker and the U.S. economy? Our automobile market is largely supported by workers. If they are paid "sensible wages," what happens to that market and "the highest standard of living the world has ever seen?"

These are vital questions. We must decide whether or not we can afford automotive living, because today it is a major factor in U.S. business activity, in taxes at all levels, and in our mode of daily life.

B. S. GARVEY, JR.

Wayne, Pa.

The Seniority System

To the Editor: In "The Myth of Retirement" (December), Clarence B. Randall defends compulsory retirement as solely "a function of organization morale and discipline." Yet the compulsory system is merely an application of the seniority system which management rightly opposes but which is strongly endorsed by the unions. It is also used among teachers and the military and in both instances is criticized by those who wish to emphasize individual ability.

If they are consistent, those who, like Mr. Randall, endorse compulsory retirement would have to extend the seniority system throughout their organizations. Obviously this means management would abdicate one of its principal functions—the selection of the best qualified individual for each position—but where is the difference between that and the system of compulsory retirement?

To let a man continue to work beyond some arbitrary age limit does not imply that he would have to continue in the same position he has held. What we need, rather, is the formal adoption of the "elder statesman" concept. Let people who are willing and able continue to work.

Business executives and military leaders take it for granted that they retire at full pension and then take well-paying jobs elsewhere. The amounts saved by continuing them in their regular employment could well be used to increase the pensions of those now suffering from their inability to live decently in their old age.

ERNEST H. WEINWURM

Professor
College of Commerce
DePaul University
Chicago, Ill.

Coming Up!

To the Editor: Like Mr. Seiberlich ("Letters to the Editor," December), I hope Mr. Randall's articles will be published in book form and that you will let your readers know if and when it will be available.

L. W. DAVIS

President
Metal Hydrides Incorporated
Beverly, Mass.

Mr. Randall's articles on business "myths," which have been appearing monthly in DUN'S REVIEW *since January 1960 will be published in book form early in the fall.* The Folklore of Management *will be issued under the joint imprint of* DUN & BRADSTREET, INC., *and Little, Brown & Company.*
—ED.

Cheering for Goldwater

To the Editor: I liked Paul Wooton's interview with Senator Barry Goldwater (January). I feel we need him sorely as President, and I believe he would have beaten JFK if he'd been handed the "running pants." He has a clear, concise, positive approach to all problems. His thinking would keep our country respected, strong, and solvent for generations yet unborn.

MERIT K. BURROUS

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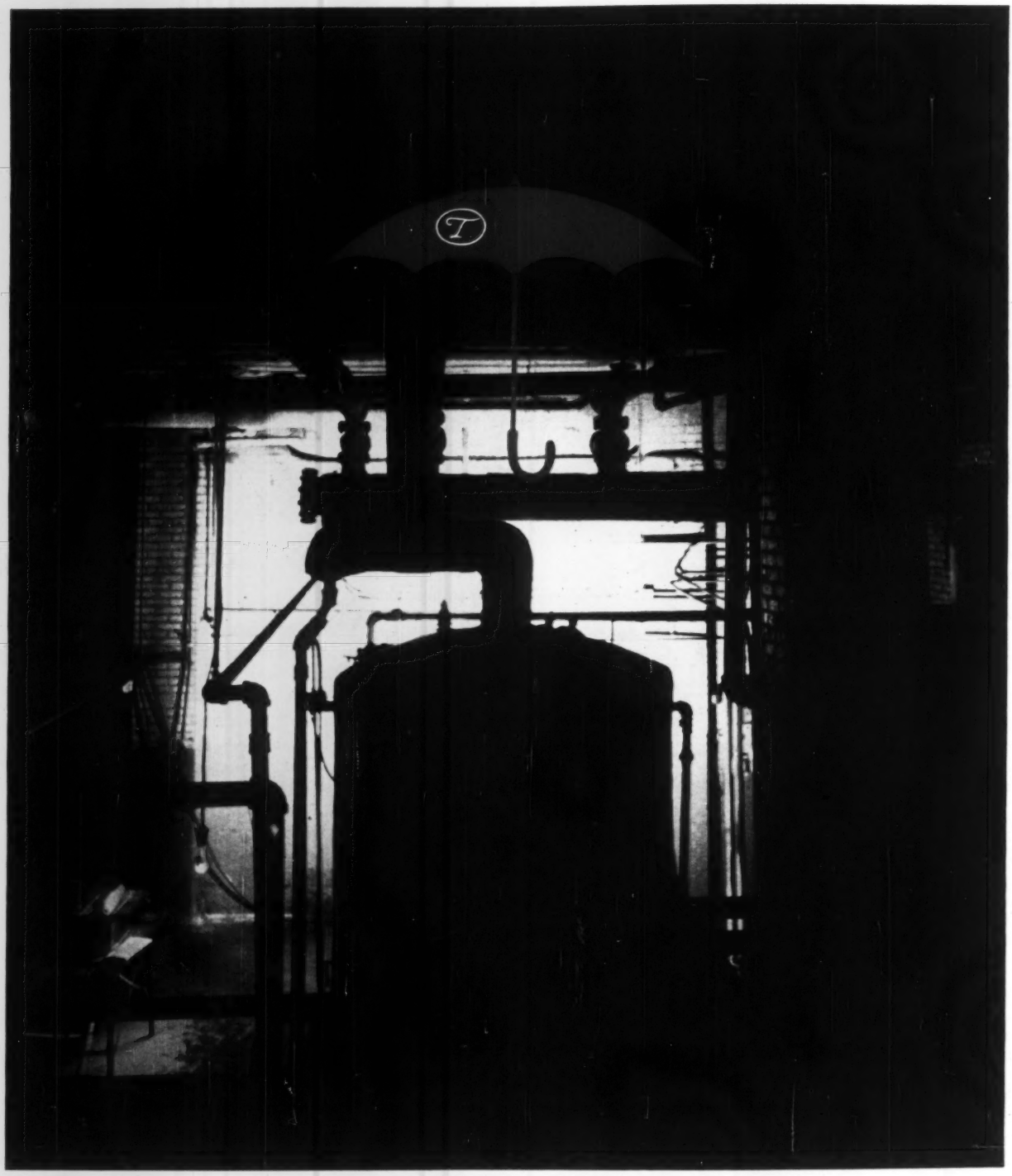

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Business Failures

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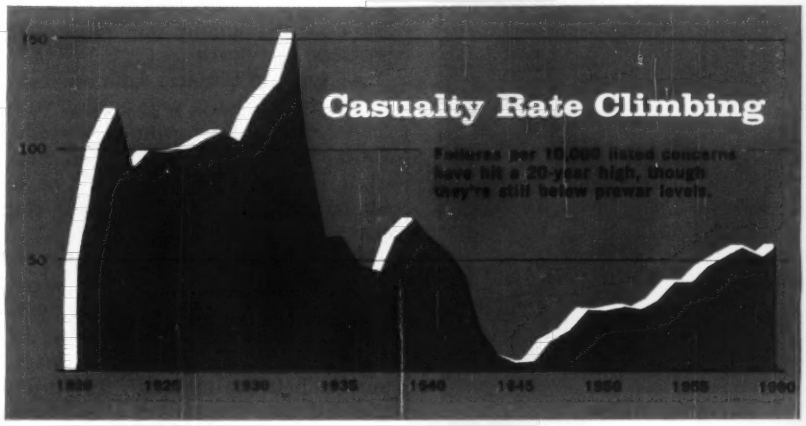
Dollar liabilities edge up



BUSINESS FAILURES, turning up seasonally in January, rose 4 per cent to 1,404. Casualties were running higher than in any month of 1960 or 1959—some 19 per cent above January of last year—but they remained below the March-April level of 1958.

The seasonally adjusted failure *rate* (as distinct from the total number of failures) dipped in January to 61 from December's 63 per 10,000 enterprises listed in the DUN & BRADSTREET *Reference Book*. But it was still well above last year's January figure of 51 per 10,000 and the worst rate for any January since 1939.

Meanwhile dollar liabilities edged up 3 per cent to $81.5 million. More concerns in the $25,000 to $100,000 size group failed in January this year than in any other month in the postwar period. This liability class also suffered the sharpest rise from 1960 levels, helping to increase losses to half again as much as they were in January last year.

Both manufacturing and construction tolls dipped to the lowest levels in the past three months, but casualties

continued on page 14

WHY BUSINESSES FAIL: Year ended December 31, 1960

APPARENT CAUSES	MFG. %	WHOL. %	RET. %	CONST. %	COMM. SERV. %	TOTAL %
NEGLECT	1.9	4.2	3.3	3.2	3.6	3.2
FRAUD	1.3	3.7	1.7	1.2	0.9	1.7
INEXPERIENCE, INCOMPETENCE	94.3	89.4	90.5	90.5	88.9	90.8
Inadequate sales	54.3	48.1	50.9	36.4	51.6	48.8
Heavy operating expenses	7.8	4.1	3.8	10.2	5.5	5.7
Receivables difficulties	11.8	16.4	4.8	15.1	5.6	8.9
Inventory difficulties	4.8	9.0	10.0	2.3	1.9	7.0
Excessive fixed assets	10.9	3.5	5.4	4.3	13.2	6.6
Poor location	0.2	0.9	4.1	0.3	1.7	2.3
Competitive weakness	17.8	22.4	23.3	30.0	18.2	23.0
Other	4.8	4.3	3.6	5.9	3.3	4.2
DISASTER	1.1	1.6	1.3	0.4	1.1	1.1
REASON UNKNOWN	1.4	1.1	3.2	4.7	5.5	3.2
TOTAL NUMBER OF FAILURES	2612	1473	7386	2607	1367	15445

Compiled by DUN & BRADSTREET, INC. Classification based on opinion of creditors and information in credit reports. Since some failures are attributed to a combination of causes, percentages do not add up to 100 per cent.

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in other lines kept mounting. In manufacturing, appreciable declines from December were registered by textiles, apparel, and machinery. In construction, the best showing was made by general building, where fatalities ran the lowest since July.

In contrast, retailers suffered the most failures since the spring of 1958. The toll among building materials dealers reached a nine-month high, and marked increases from December occurred among apparel stores, jewelers, and florists.

All types of business suffered heavier mortality than a year earlier, with the steepest climb in wholesale trade. Twice as many machinery and electrical goods wholesalers failed as in January of 1960, and a sizable rise also appeared in the food trade.

Business and personal services accounted mostly for the over-all 30 per cent rise in service casualties. While retail failures as a whole turned up 17 per cent from the previous January, tolls in building materials and drugs doubled, and increases of over 30 per cent prevailed in the automotive and food lines.

Six of the nine major geographic regions reported rising failure levels during January, and all but the New England and Middle Atlantic States suffered more casualties than a year ago. The sharpest year-to-year climb occurred in the South Atlantic States, where casualties doubled, hitting a new postwar high. Many states in the

THE FAILURE RECORD

	Jan. 1961	Dec. 1960	Jan. 1960	% Chg.†
DUN'S FAILURE INDEX*				
Unadjusted	62.9	58.3	52.5	+20
Adjusted, seasonally	61.1	63.4	51.0	+20
NUMBER OF FAILURES	1404	1353	1181	+19
NUMBER BY SIZE OF DEBT				
Under $5,000	137	141	151	−9
$5,000—$25,000	585	568	508	+15
$25,000—$100,000	520	497	396	+31
Over $100,000	163	147	126	+29
NUMBER BY INDUSTRY GROUPS				
Manufacturing	228	231	210	+9
Wholesale trade	151	130	98	+54
Retail trade	685	637	587	+17
Construction	219	245	193	+13
Commercial service	121	110	93	+30
LIABILITIES (*in thousands*)				
CURRENT	$81520	$78971	$53671	+52
TOTAL	81834	79252	55005	+49

*Apparent annual failures per 10,000 enterprises listed in the DUN & BRADSTREET *Reference Book*.

†Per cent change, January 1961 from January 1960.

In this record, a "failure" occurs when a concern is involved in a court proceeding or in a voluntary action likely to end in a loss to creditors. "Current liabilities" here include obligations held by banks, officers, affiliated and supply companies, or the governments; they do not include long-term publicly held obligations.

FAILURES BY DIVISION OF INDUSTRY

	Cumulative total (January)		Liabilities in million $ (January)	
	1961	1960	1961	1960
MINING, MANUFACTURING..	228	210	26.1	16.3
Mining—coal, oil, misc..	9	10	1.9	2.2
Food and kindred products	17	22	2.4	1.2
Textile products, apparel.	32	34	3.9	2.8
Lumber, lumber products.	32	33	2.1	1.3
Paper, printing, publishing	22	13	1.9	.6
Chemicals, allied products	8	8	.6	.9
Leather, leather products.	6	8	.7	1.1
Stone, clay, glass products.	3	—	.1	—
Iron, steel, products.....	25	19	1.8	1.7
Machinery.....	20	17	2.0	1.1
Transportation equipment	12	10	1.8	.8
Miscellaneous.....	42	36	7.0	2.7
WHOLESALE TRADE.....	151	98	11.4	6.3
Food and farm products..	30	21	2.2	1.5
Apparel.....	2	2	.0	.1
Drygoods.....	—	6	—	.2
Lumber, bldg.mats.,hdwre	17	12	2.6	.6
Chemicals and drugs....	3	1	.0	.0
Motor vehicles, equipment	10	9	.5	.3
Miscellaneous.....	89	47	6.0	3.6
RETAIL TRADE.....	685	587	28.7	16.0
Food and liquor.....	93	67	3.7	1.2
General merchandise....	20	17	4.1	.7
Apparel and accessories..	92	90	2.5	2.3
Furniture, furnishings...	89	90	2.9	3.0
Lumber, bldg.mats.,hdwre	50	25	1.9	.9
Automotive group.....	122	97	5.9	2.7
Eating, drinking places...	117	112	4.8	3.1
Drug stores.....	22	10	.7	.3
Miscellaneous.....	80	79	2.1	1.6
CONSTRUCTION.....	219	193	11.2	12.0
General bldg. contractors.	79	70	4.0	4.6
Building subcontractors..	122	106	6.1	6.1
Other contractors.....	18	17	1.1	1.4
COMMERCIAL SERVICE.....	121	93	4.1	3.1
TOTAL UNITED STATES.....	1404	1181	81.5	53.7

Liabilities are rounded to the nearest million; they do not necessarily add up to totals.

region—Florida, Georgia, South Carolina, and Virginia—reported sizable increases. Arizona was largely responsible for boosting the Mountain States' total some 50 per cent. In the East North Central Region, failures reached the highest level since early 1958—both Ohio and Michigan tolls mounted steeply. Few large cities reported upturns, but New York, Detroit, Cleveland, and Cincinnati failures ran above year-ago levels.

Heightened competition has tested management experience and competence severely. In the analysis of failure causes summarized in the table on page 13, competitive weakness was noted in 23 per cent of the casualties. In 1950, on the other hand, the proportion was 13 per cent. Of course, the reasons why one business founders in the competitive battle while another survives depend on a complex interplay of experience, aptitude, and personal factors.

This report was prepared in the Business Economics Department by Rowena Wyant.

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WASHINGTON Business Front

JOSEPH R. SLEVIN

- *What's ahead in 1970? The Budget Bureau says "More spending," no matter how you slice it.*
- *There's tax revision in the offing, but timing it poses the delicate problem of politics.*
- *Government agencies have one fond fiscal hope: that Kennedy doesn't mean what he says.*

WASHINGTON, D.C.—The men on Capitol Hill are beginning to face up to some difficult and critical decisions about the role of the Federal Government. What Congress—and that means the American people—must determine is how big a Government it wants and how much it wants the Government to do. These sound like abstract questions of political philosophy, but the answers will be provided in real and practical fashion by the votes on President Kennedy's proposals.

The country will not be asked if it wants a bigger or a smaller, a cheaper or a more expensive Government. Yet what happens when Congress is asked to spend more money for schools, hospitals, jobless benefits, depressed areas, and foreign aid will effectively define the Government's role in the years ahead. And the decisions that are being made in the opening months of the Kennedy Administration are only a sample of what's to come.

No one can say for sure how rapidly Federal spending will rise, but an unprecedented official attempt has now been made to gauge what an expansion of Government activities will cost during the '60's. It is contained in a special study that Budget Director Maurice H. Stans gave to President Eisenhower on January 18, two days before President Kennedy took office.

Federal spending rose 94.9 per cent from fiscal 1950 to fiscal 1960, and Stans says that "most likely" it will rise 26.2 per cent from 1960 to 1970. Even if the spenders are "economy-minded," he predicts an increase of 8.6 per cent. If "looser" fiscal policies win out, it will surge ahead by 58.8 per cent.

Margin for error: $38 billion

The Budget Bureau tagged its three projections "low," "medium," and "high." If the low forecast is accurate, Government spending will go from $77.2 billion in fiscal 1960 to $83.9 billion in fiscal 1970. Under the medium forecast, on which the Bureau cautiously places its bet, the 1970 budget will hit $97.4 billion. The high prediction calls for 1970 spending of $122.6 billion.

In all three forecasts, Stans and the Budget Bureau experts were assuming that cold war tensions would not get significantly better or worse. They did not allow for a disarmament program—or for a shooting war. Instead, they wagered the increased outlays would come from a wide range of social welfare programs.

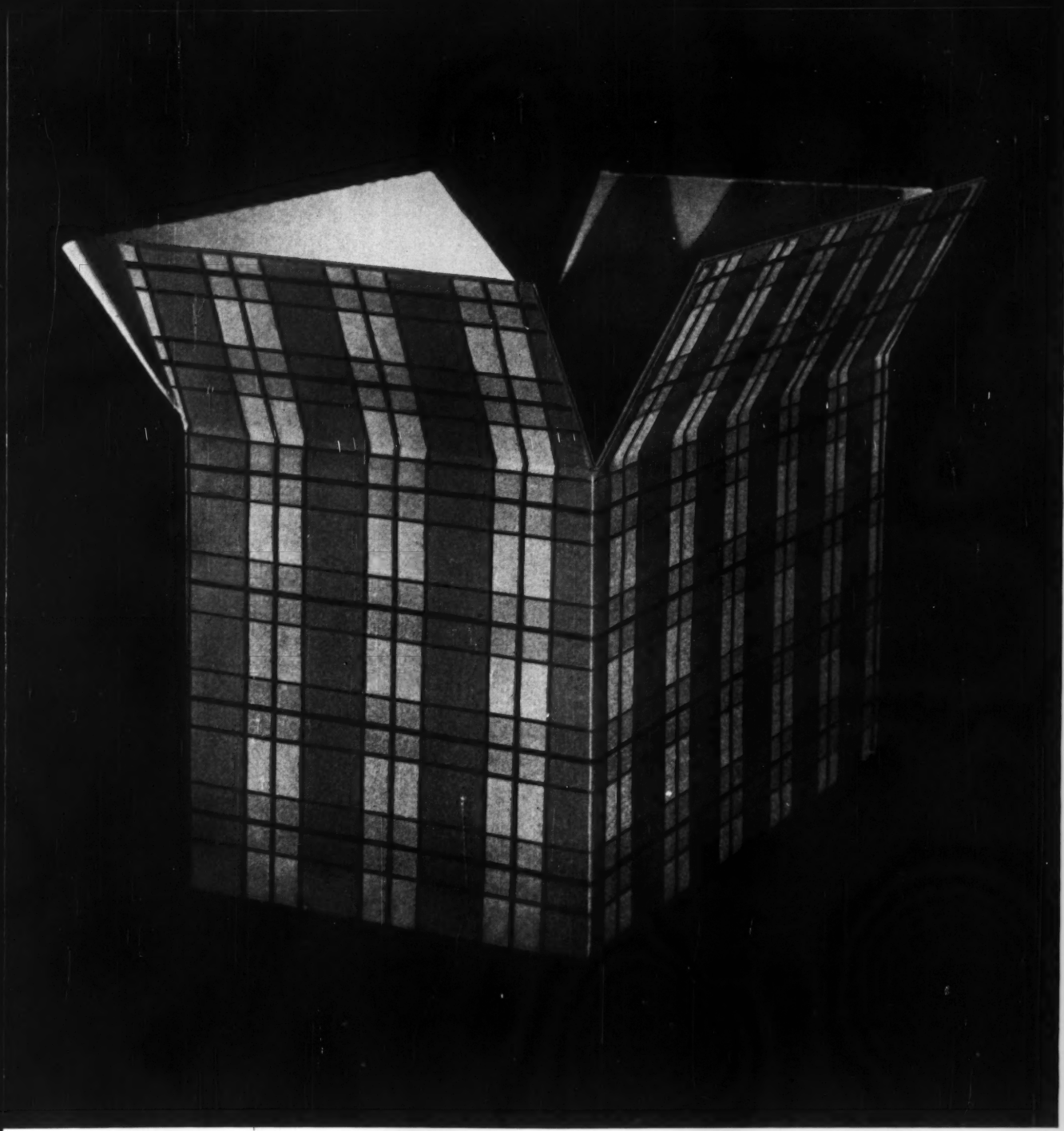
Their medium 1970 budget is $20.2 billion larger than last year's spending program, and slightly more than half the increase represents the expansion of programs already enacted. The rest consists of new programs that are "likely add-ons."

The Government fiscal authorities, taking a hard look at the pressures on Congress in recent years and at party platforms and promises, conclude that nine years from now the American people will be spending an additional $1.8 billion for public assistance, including new medical care programs, and $1.6 billion more for public health. They predict a rise of $1.2 billion a year in Federal education expenditures.

Each of these three increases covers a large number of separate programs. The rise in public assistance costs, for instance, will come with liberalized medical care for the aged, more caseloads, higher administrative costs, more generous relief grants, and a revision of the Federal-State matching formula—a revision which, the forecasters assume, will not be in Washington's favor.

If public health outlays climb to the medium estimate of $1.6 billion —a 200 per cent increase—it will mean that the National Institute of Health will be spending $1.3 billion by 1970, in contrast to $300 million last year. Care for the aged comes in for more money in this category too, and there will be bigger grants for hospitals and research facilities, medical, nursing, and public health schools, for combating juvenile delinquency, and for child welfare.

The fiscal experts say that another 200 per cent advance—for education spending—could come in if the Government expands programs we already have and starts helping to build



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elementary and secondary schools.

Under the "most likely" forecast, the Government would also increase its space outlays by $1.5 billion a year and add $800 million to its veterans' programs and $700 million each to its water resources, housing and community development, and postal service operations.

There is, in fact, only one big decline in the medium forecast. That is in spending for national security—down $1.7 billion to $43 billion in 1970. The experts think military operation and maintenance costs and retired pay will go up, but they report it is "highly likely" that military construction and aircraft and missile procurement will cost less, since there will be less emphasis on manned aircraft and the bulk of the heavy initial investment in missile systems will be made by 1965.

Under the "high" budget projection for 1970, however, defense outlays rise $4.3 billion—instead of falling—on the assumption that the Government will spend heavily to modernize the Air Force, build more naval vessels, use Saturn-type boosters for the military space program, and operate military-manned space vehicles.

The high estimate calls for a civilian space program increase of $2.3 billion, instead of $1.5 billion, on the assumption that Soviet achievements will foster a "very favorable" public attitude to U.S. space expenditures. "The high projection includes funds for both development and operation of civilian space systems, for extensive manned lunar exploration and the initial costs of manned planetary exploration," the Budget Bureau declares.

The big difference between the $122.6 billion forecast and the medium one, however, is in the controversial social welfare programs—health, education, housing, and the like. The largest single increase in the high budget is for education. The Federal Government could spend $5.7 billion more for education than it would under the "most likely" medium program if it provides funds for teachers' salaries as well as school construction. More Federal financing of college facilities and scholarships, a step-up in science education programs, and even a small grant for educational TV would up education spending to the high projection. The other big increases would be in pub-

lic health, public assistance, housing, community development, natural resources development, and foreign aid.

Budget Bureau experts think that even under the "most likely" circumstances, Government spending will rise an average of $2 billion a year during the '60's. And it will go up at an average annual clip of $4.5 billion if the high budget programs carry the day.

The experts examined every spending proposal that has been publicly proposed and some that haven't. But if past history is any guide, the odds are that, even so, they overlooked some expensive innovations that the American people will decide to adopt.

Timing the Tax Bills

There's growing support for a modest tax revision bill this year. The word "modest" is used advisedly, since neither the Administration nor Congress hankers to try a full-scale tax revision before the lawmakers leave town this summer. The Administration is not yet sure of what it wants, but prospects are that a really major tax revision bill will become law before the 1962 Congressional election.

That timetable would neatly duplicate the performance of the Eisenhower Administration: The last overhaul of the Internal Revenue Code came in 1954, during its second year in office.

Words of One Syllable

Government career officials are planning to give Kennedy Administration Budget Director David E. Bell a hard time, come next July. They're not going to be unpleasant about it. They just want more spending money for their agencies and bureaus.

July is their target month because that is when the Government traditionally buckles down to the job of preparing its budget for the following financial year. One of Mr. Kennedy's first official acts was an order directing Bell to tell the Federal agencies that a bunch of requests for larger funds would not get far this year. July will give the career officials their first opportunity to test the "No" power of the new Administration.

Bell may want to borrow a sign that his predecessor, Stans, kept on his desk. In large, black letters, it asked: "WHY?" END

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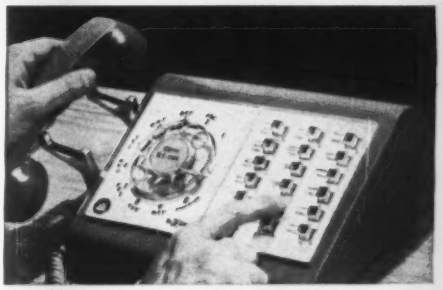

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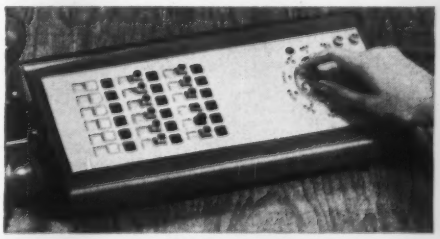

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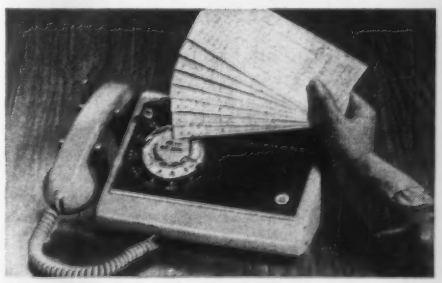

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STAFF OF TRUCK SPECIALISTS

consuming job, but a necessary one if trucks are to be kept in the best operating condition.

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DUN'S REVIEW
AND MODERN INDUSTRY
March 1961

EDITORIAL

Neutralism In Business

DURING the American Revolution there were patriots, Tories, and trimmers. The latter, often overlooked by historians, "trimmed their sails to the prevailing wind" and had two flags by the window. Today, we have the Communist Eastern bloc, the capitalist Western bloc, and the neutralists who sit on the side lines—many of them, like the trimmers, wavering in support of either side as they watch the struggle for economic and political superiority.

But neutralism is not limited to diplomacy, where it can exist in principle and may have the excuse of self-preservation. It can be observed in the management of companies that evade decisions of principle and policy when risk of money, energy, or time is involved. "Status quo—do not disturb" is the policy of these companies. They avoid participation in programs for industrywide benefits, legislative issues, regulatory disputes, trade association cooperation, community interests, or any situation requiring the acceptance of responsibility or exposure to the challenge of criticism on matters of principle.

Neutralism in business is typified by the "wait and see," committee-motivated policy which plays it safe —and occasionally winds up out of the game. In a recession, neutralism waits for a trend to follow instead of creating a trend by courageous leadership. It depresses confidence and increases the negative sentiment which atrophies the mind and muscle of business. It seldom makes errors—just the big error of omission. More companies falter and fall by the wayside because of paralyzed imagination and enfeebled will power than because they took a calculated risk.

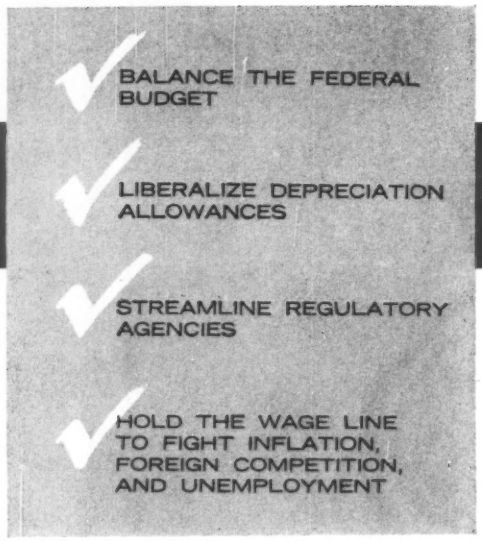
Life demands more daring than caution. When an individual, company, or nation places total security above reasonable risk, it accepts a vegetable existence and sacrifices principle, integrity and purpose to conformity. "Dare a little and doubt a little, but have a lot of faith" is good counsel when we are called on to take a stand and a direction. Every pause in the forward movement of the economy, whether a minor dip or prolonged slowdown, is an opportunity to be seized on by alert and enlightened management.

Internationally, we have been jabbed off balance by political antagonists and aggressive competitors. But we can't complain of the increasing neutralism at the United Nations when we as business men permit this disease to infect our attitudes in dealing with our own problems, and when we forget that an unanswered challenge is a victory by default for a competitor. There comes a time when we can't "abstain" from voting for or against, when we can't use weasel words or silence to escape being counted if there is a principle at stake or a concept to be defended.

Too often, neutralism is a technique for side-stepping responsibilities and dismissing obligations. No man can face life's challenges saying, "I'm not here." American business has grown powerful by assuming risks and facing issues decisively. Its progress will stop if management refuses to take active interest in policies, attitudes, or legislation affecting the welfare of industry at home and abroad. There is no room for neutrals in business when the fight is on for short-term recovery or long-term survival. Neutralism creates nothing. It is sterile.

A PRESIDENTS' PANEL REPORT

What Business Wants From Kennedy


BALANCE THE FEDERAL BUDGET
LIBERALIZE DEPRECIATION ALLOWANCES
STREAMLINE REGULATORY AGENCIES
HOLD THE WAGE LINE TO FIGHT INFLATION, FOREIGN COMPETITION, AND UNEMPLOYMENT

The cheers that rose from the business community last November 9 were hardly rousing. Today, for various reasons, corporate chiefs are not so sure that Kennedy's election spells trouble.

WILL John F. Kennedy ever be called the business man's President? It would have been an unlikely question a few months ago. But now that they've seen him in action, many misgivings business men had about Kennedy and his goals have evaporated.

The new President's Cabinet appointments, and his dignified, efficient handling of responsibilities during the interregnum, boosted his stock among many corporate leaders. Very few are planning to leave the ranks of political conservatism, but despite apprehensions about portions of Kennedy's program, many of them feel optimistic about the prospects for business under four years of Democratic leadership. Most of them expect the business outlook to improve, or at worst, remain on the high level of recent years. Only a handful of doom-and-gloomers expect some loss in terms of profits or growth under Kennedy's Administration.

Even in the most optimistic, however, confidence in the business outlook is tempered by a conviction that stepped-up Government spending, higher taxes, and increased Federal control of business may be in the offing between now and 1965.

This impression emerges from a survey of the DUN'S REVIEW Presidents' Panel, composed of the top executives of nearly 200 leading manufacturers whose plants dot the U.S.

One thing that has helped placate this largely conservative group about Kennedy's victory is the composition of his Cabinet.

"I feel that the balance is surprisingly good," says Harry W. Bradbury, president of Glen Alden Corp., expressing a typical view.

The appointments of C. Douglas Dillon to the Treasury Department, Luther H. Hodges to Commerce, and Robert S. McNamara to Defense were widely received with favor—in some cases, relief.

There is, nonetheless, some skepticism about the Cabinet appointments. Asks the president of a machinery manufacturing company: "Can men like McNamara and Hodges stick it out against Robert Kennedy and Goldberg?"

The President's brother and the new Secretary of Labor, ex-legal counsel to the United Steelworkers, cause a number of the Panelists serious misgivings. Most, however, feel the Cabinet's over-all philosophical and political balance is acceptable, even if some agree with the head of a company in the lumber and wood products industry that "the men ap-

Man of the Hour

What American political leader reflects most closely the attitudes and philosophies of America's leading business men? The man named most often by the Panel is Republican Senator Barry Goldwater of Arizona. Richard M. Nixon – once again – runs a close second. Copping third place is former President Dwight D. Eisenhower, whose years in office were overwhelmingly rated a success by the Panel

GOLDWATER 40% NIXON 33% EISENHOWER 17% KENNEDY 6% ROCKEFELLER 4%

pointed are primarily theorists, unproved in public service."

Close to two out of three panelists say their opinion of President Kennedy shot upwards following his election. Responsible for this new appraisal is their conviction he will employ pragmatic, rather than doctrinaire, methods. Words like "cautious," "practical," and "responsible" stud their evaluations.

Kennedy the Conservative?

A few panelists, such as the president of a food products company, feel Kennedy is really a conservative. But a larger group sees him as a political hybrid—one part liberal, one part conservative, two parts practical. Typical of this view is the description by Milferd A. Spayd, chief executive of Standard Register Company: "Kennedy is a political realist—smart and tough."

Whatever the Panel's general opinion of Bobby Kennedy, his expected crusade against labor racketeers will be welcomed. Still, business enthusiasm for this project is tempered by an undercurrent of cynicism: One president sees only a crusade for headlines, not labor racketeers, while others agree with one executive that Brother Bob will probably "go all out for Hoffa, but stop there."

Business concedes, at least implicitly, that the nation is in the throes of a recession—and most Panelists feel the Government should act now, or in the near future, to cope with it. Among themselves, though, the presidents show little agreement as to what should be done. The chief executive of a large chemical company calls for a program to restrict imports and revise corporate and individual taxes. Steele L. Winterer, top executive of A. & M. Karagheusian, Inc., favors highway building, major slum clearance efforts, the establishment of a new Civilian Conservation Corps. One president demands an immediate wage freeze, backed by a Federal information drive explaining why it's necessary.

Few business leaders endorse the anti-recession steps President Kennedy outlined on February 2 to boost Social Security benefits and extend unemployment compensation. Too costly, they say, though they concede more Government spending over the long run is inevitable.

Most of the presidents fear that taxes, in one form or another, will creep upwards during the next four years. Their opinion is summed up tersely by one New England company head: "Taxes? More and worse!"

If these corporate heads could tackle the nation's problems, Kennedy's "New Frontier" would be as obsolete as the Landon sunflower. For as the first major step, they would start chopping the Federal budget. Two prime targets, each suggested by three out of ten Panelists, are agriculture ("An economic activity no more entitled to subsidies than any other"—Clinton F. Robinson, president of Carborundum Company), and foreign aid ("Let's quit playing Santa Claus"—President Frank C. Staples of American Molasses Company).

Depreciation allowances are widely attacked as unrealistic and an unnecessary brake on business expansion. There is overwhelming agreement with the view of the head of an electrical equipment company. He calls for liberalization of depreciation allowances as an "incentive to put new plants and equipment—and more people—to work."

Second choices

If the presidents of major U.S. corporations were running the country they would act quickly to counter foreign competition. But the defense that most would propose—holding down wage increases not related to productivity—is one they strongly doubt could be put across for years to come. So, for the immediate future, they suggest more orthodox measures—boosting tariffs (urged by 12 per cent) and imposing import quotas (11 per cent). Like the chief executive of a sporting goods company, a few Panelists say the U.S. should "demand, as a condition for accepting imports, that a minimum wage of $1 an hour be paid the foreign workers who produce them."

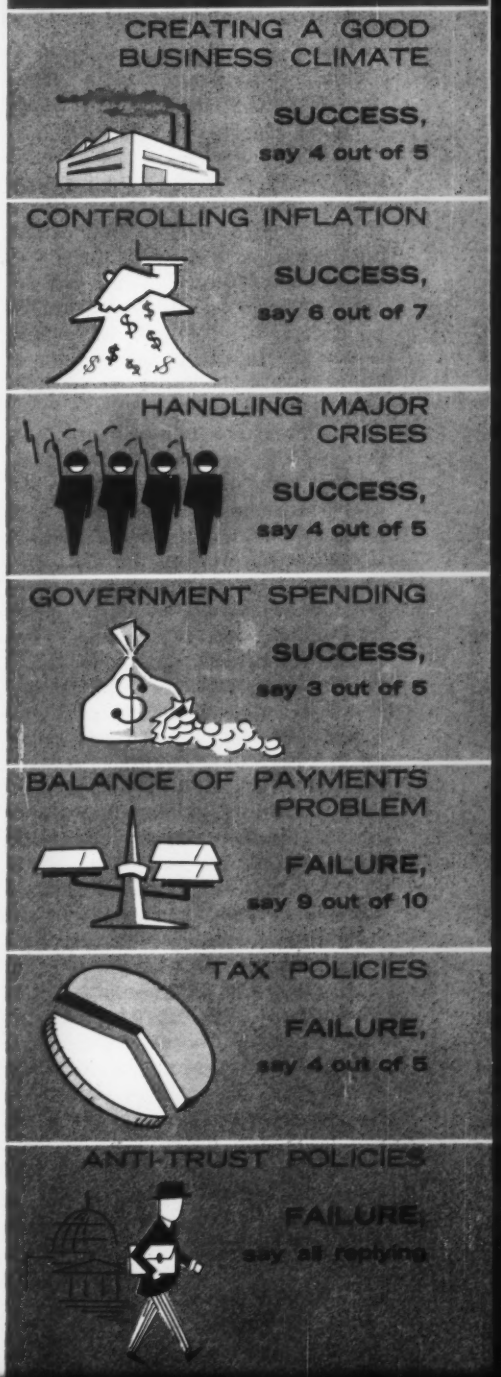
Federal regulatory agencies, say the Panelists, need some long-due streamlining. Higher caliber personnel would solve the problem, according to 13 per cent. Others think the Government's great "fourth branch" should have a complete overhaul. "Cut the expense of red tape that we can't afford," pleads one New York executive. "Eliminate overlapping jurisdictions," urges a Midwestern president.

Only on the problems of mounting unemployment and aid for chronically depressed areas is there uncertainty

Eisenhower:
A Presidential Scorecard

Experts are agreed on Dwight Eisenhower's high rank among U.S. presidents. But how large a majority do the industrial leaders making up the DUN'S REVIEW Panel give? 77 per cent of the president's score the two Eisenhower terms as good or excellent in terms of their overall effects on business. Twenty-one per cent think that he's achievements and failures balanced each other out. Only 2% of the presidents view his record as a complete failure.

Here's how they score the Eisenhower performance in detail:


CREATING A GOOD BUSINESS CLIMATE
SUCCESS, say 4 out of 5
CONTROLLING INFLATION
SUCCESS, say 6 out of 7
HANDLING MAJOR CRISES
SUCCESS, say 4 out of 5
GOVERNMENT SPENDING
SUCCESS, say 3 out of 5
BALANCE OF PAYMENTS PROBLEM
FAILURE, say 9 out of 10
TAX POLICIES
FAILURE, say 4 out of 5
ANTI-TRUST POLICIES
FAILURE, say all replying

and a genuine division of opinion on the Panel. Nearly two out of every ten presidents say the Government should keep away from the unemployment problem for the time being. One top executive believes the Government should step in only when 10 per cent of the labor force is out of work. Till then, measures in effect under Eisenhower should suffice.

But for every corporate leader who feels the unemployment problem should run its own course, another sees a need for immediate action.

Call for a census

Like the United Auto Workers—although for different reasons—President Horace Y. Bassett of Calumet & Hecla, Inc., urges a thorough census of the unemployed. He insists that the effects of "moonlighting," "mink coat employment" of housewives out to earn money for special purchases, and the fact that many of the unemployed turn down job offers, tend to peg joblessness higher than it really is. The UAW on the other hand, insists an "honest count" would expose the official jobless rate of 7 per cent as unreasonably low.

Far more than unemployment, the depressed areas cause grave concern among Panel members, who see joblessness as only a *symptom* of economic distress, and chronic depression in certain regions the malady itself. Two out of five want the Government to offer tax benefits to industries in depressed areas, channel Government contracts and public works projects there, and extend loans and grants to stricken businesses. Several Panelists feel communities unsuitable for industry should help surplus workers find more hospitable industrial climates. Only a small group insists the Government should keep hands off altogether.

Recession or no, the President's Panel feels very warmly about the Administration which went out of office in January. In terms of their effect on business, the Eisenhower years are rated good or excellent by more than three out of four presidents. Indeed, only two score the GOP Administration a failure. One of Eisenhower's greatest achievements, thinks Clifford J. Backstrand, head of Armstrong Cork, was his "successful effort to create an economic climate in which business could have confidence." Control of inflation, efforts to balance the budget, the emphasis on financial integrity—these are widely cited as outstanding achievements of the former administration. Highest praise is reserved for keeping the U.S. out of war and depression. But even General Eisenhower's most faithful admirers do not conceal their disappointment over certain shortcomings. Among them: "sloppy handling of the gold-flow business," "failure to cut taxes," "over-rigid enforcement of the antitrust laws."

Considering that in the past 29 years the nation has elected a conservative president for only two terms, do business men think the Eisenhower years were merely a passing phenomenon, an exception to the rule of ever increasing liberalism in Washington?

Overwhelmingly, the Panel executives reply, "No!" They see a bright future for conservatism, and cite the GOP's showing in the Congressional races last autumn. Says one exultantly: "Look at the character of the 21 new Republican Congressmen!"

They also point to the narrowness of Kennedy's victory despite the Democrats' lead in party registration. Kennedy's slim margin, they believe, reflects a conservative resurgence. Says President James A. Taylor of Standard Screw Company: "More people are acquiring something to 'conserve.' Someday they'll wake up."

Indeed, Panel presidents are so convinced conservatism is in robust health that only one attributes Nixon's defeat to a conviction that he was out of step with the times. His failure to win endorsement at the polls is explained by the TV debates and the swing of Catholics to Kennedy.

A small group of self-labeled "realists" insists that the conservative movement has, at best, a dim future. Predicts one president dolorously: "It is dead for some years to come."

Henry C. Estabrook, head of Sealright-Oswego Falls Corp., agrees. "Although I tend toward conservatism," he says, "I can't see how it will get very far unless we have a real calamity (God forbid!)."

Despite their relief that Kennedy did not live up to their fears—and their confidence that business will prosper under him—some 40 per cent of the Panel pick Senator Barry Goldwater as the man who most closely reflects their own political philosophy. A third choose former Vice President Nixon, followed by ex-President Dwight D. Eisenhower with 17 per cent of their votes, President Kennedy, with 6 per cent, and New York's Governor Rockefeller with 4 per cent.

Goldwater's "victory" has considerable significance. The bulk of the Panelists are Republicans, many of them men of influence within the party. Four years from now, endorsement by the presidents of America's top corporations might be a powerful persuader to GOP convention delegates gunning for John Kennedy's scalp.

JACK J. FRIEDMAN

Business In Politics:

A Post Mortem

Last year, American corporations were hip deep in programs to teach employees the facts of political life. How did these efforts—ranging from get-out-the-vote drives to political science courses—do in 1960? Panel members split almost evenly in their evaluations: 41 per cent feel the programs proved their worth last year; 39 per cent damn them for ineffectiveness. And another 10 per cent have mixed feelings. They see a payoff in such areas as boosting voter registration, a washout in others, such as explaining campaign issues.

Regardless of past performance, two thirds of the top executives plan to beef up their own company programs. Only a quarter intend to trim them. One president in ten is deferring judgment.

It takes courage to bet on your own judgment—especially if it means defying the statistics. Most of the time, most business men would rather run with the pack. But there's no safety in numbers—and no special magic either.

The Myth of the Magic Numbers

CLARENCE B. RANDALL

THE dynamic power which drives our American economy forward is freedom of choice—freedom to buy or not to buy, freedom to spend or to save, freedom to work or not to work, freedom to risk for gain, freedom to follow fresh impulse wherever it may lead.

The outward characteristic of this economy is continuous and unforeseeable change. This is the quality which differentiates it from one controlled by the state. A static society is expected to perform steadily. One which draws its spontaneity from innumerable individual actions cannot possibly have a predictable pattern.

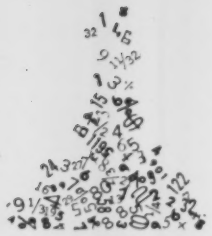
The supreme test of good industrial management in today's America is its resolute capacity for swift adjustment to change. Revolution follows revolution in technology. Science advances with such disconcerting speed that by the time basic research has found expression through applied research and a new product appears on the market, the basic concept may itself have been superseded. With the long lead time which our complex mechanisms require before coming off the manufacturing line, the new end product may be obsolescent before it reaches the customer.

Developments that are far from scientific have an equally unsettling impact upon industry. Subtle variations in taste and demand appear in a flash—to vanish as quickly. The necessities and luxuries of today become the discards of tomorrow.

Social values alter, too. What is respected or coveted today as a symbol of status may fall tomorrow under the ban of an unforeseen taboo. Style preferences, rising standards of living, fear of war, class animosities, geography, new means of transport—all these factors and many more strengthen demand in one quarter and weaken it in another, with the result that levels of production are constantly threatened by uncertainty.

The only constant in the equation of industry is change itself. As each such disturbance strikes our economy, new challenges confront industry and new decisions must be taken. The formula which resolved the previous crisis may prove futile this time. There must be a continuous reorientation, a continuous redevelopment of management effort on new fronts.

Clarence B. Randall, who resigned in January as special White House assistant on foreign economic policy, is a former board chairman of the Inland Steel Company. He is also a well-known writer, an eloquent spokesman for free enterprise, and a noted management thinker.



We survey everything these days. Myriads of little men and women with sharp pencils are sent out to ask innumerable questions of all comers.

Regardless of heavy loss, product lines may have to be redesigned swiftly to reflect advanced techniques. New marketing areas may have to be sought overnight and rapidly exploited. Plants may not only have to be rebuilt but relocated. Sources of raw material never before used may have to be found. The transformation can be so sweeping in its effect that the whole corporate and financial structure of the company has to be overhauled.

In the midst of such turmoil there is little time for sober thought and many a harassed executive loses his head.

He yields to mob psychology. His first thought is to ask what his competitor is doing. A hasty readjustment program, conceived on a crash basis by one company, can sweep through an entire industry.

It is at such times that business men begin to play the numbers game. The timorous and hard-pressed executive, who deep down inside resents and resists change, abandons the realm of ideas and individualistic, creative action. He seeks refuge in statistics. Not sure of his own thinking, and hesitant to plunge boldly ahead on a plan of his own that would put his personal status in hazard, he takes protective covering in conformity with whatever general level of conduct seems to be emerging.

His first step is to order a survey. He does this under the plausible pretext that he must ascertain the facts before reaching a decision, but actually he is seeking reassurance drawn from the law of averages. It is both easier and safer to follow the rest. And since many of the rest will be behaving in exactly the same way, a colorless format of unimaginative uniformity can envelop an entire segment of our economy, solely for lack of leaders who have the courage to dig beneath the statistics and evaluate the imponderables.

We survey everything these days. Myriads of little men and women, equipped with sharp pencils or recording devices but lacking insufficient understanding of the problem to form sound judgments, are sent out to ask innumerable questions of all comers.

Today, we ask the consumer what he intends to buy, regardless of whether he has given the matter serious thought and often at a time when he couldn't care less. We ask the worker what he finds wrong with his job, with perhaps no better result than to activate his natural human instinct for dissatisfaction. We ask directors what they propose for capital expenditures in the ensuing year, and by asking strengthen their uneasiness over spending at all. We ask the man in the street what he sees for the near future, knowing that he cannot know, and we do it at a time when he himself is awaiting the result of a survey that will tell him what to think.

The net result is that the courage and insight of wide, experienced minds are swallowed up in the accumulated mediocrity of the thoughtless and the irresponsible.

The press, who are incurably pattern-minded, and whose hasty judgments often tend to submerge the particular in the general, have helped to lead the public into practicing this numbers game. They are incredulous when an executive speaks out against a trend, much happier when he confirms the story which they have written in their minds before the interview.

They have induced investors to rely on the averages in determinining when to buy and when not to buy, instead of practicing discrimination by bringing a particular security, and it alone, under careful examination.

They have imposed upon the steel industry the inexorable and unfair formula of capacity as a measure of performance. For the welfare of the economy it is tons shipped that count, tons for the current period as compared with tons for a representative period. Capacity deals only with readiness to serve, and the question of whether it is too large or too small is totally unrelated to the soundness of the immediate general level of the economy.

There is one thing to be said on the credit side, however. The press and the pollsters have overreached themselves. In their professional enthusiasm for the significance of surveys, and their aggressive insistence that they are exercising a right, not a privilege, they have started a sharp public reaction against their techniques. The American people are getting annoyed at having their privacy invaded so incessantly by the little men and little women who ask questions. At first they were intrigued and amused. Now they are bored and petulant. They solemnly give phony answers, and have a hearty laugh after they have closed the front door on the survey taker.

To cash in on the business man's present preoccupation with surveys and factual summaries, a rash of new service organizations has sprung up which will study anything for a fee. The vacillating executive turns to them eagerly. If, for example, he has a salary problem or is troubled at how large the incentive bonuses should be, these repositories of all useful knowledge will promptly send him an impressive dossier. They will show him at a glance just what the controller receives in compensation, both regular and extra, in the A, B, and C companies, and so on down through the alphabet. If he would use these tables only as a check, one tool among many, still relying on his own

Susceptible as it always is to the infection of crowd psychology, the business community has raced after false gods in other days.

judgment, all would be well. But when he blindly accepts the average as conclusive, he betrays serious weakness. No two companies are alike, and no two controllers. Duties and abilities vary widely, and it is the particular, not the general, that is important.

All such ready-made averages necessarily reflect large, undisclosed areas of incomplete data, for they are based on returns from only those companies that elect to cooperate. Understandably, many well-managed institutions think it improper to reveal such information to outsiders, however well intentioned, and the consensus may in some cases represent the views of other vacillating executives who have themselves followed earlier tables. Faulty judgment can thus be compounded indefinitely.

In labor circles, and in some of management as well, the cost-of-living index is the supreme sacerdotal symbol. As statistics go, that particular figure is probably arrived at with as much care and technical skill as any in current use. But when all is said and done, it is at best only an average that glosses over particularity with a heavy layer of generality. Quite apart from the fact that the cost of living when used as a basis for increased wages is unsound economics, unless associated with increased productivity, the use of the index on a countrywide basis is manifestly unfair. It penalizes some workers and overrewards others. Quite obviously it costs more to heat a house in Duluth than it does in Phoenix, oranges are cheaper in Miami than in Chicago, and milk is more expensive in the coal-mining districts of West Virginia than it is in Wisconsin.

Even our learned friends in the universities have made their contributions to the numbers hypnosis, but at least they have had the grace to confess error. Sociologists now know that they cannot express the inscrutable factors of human motivation by simple formulae. For the most part, people still do what they do for reasons known only to themselves. Educators frankly admit that the Intelligence Quotient, worshipped for so many years, measures merely the ability of the mind to absorb and retain facts. It cannot reliably indicate which young men possess the vital qualities of creative imagination and leadership. In fact, some now suspect that an extremely high I.Q. may often reveal merely a quality of genius that is so set apart as to be of doubtful value to organized society.

The most depressing aspect of the numbers mania is that it results in the exaltation of the average. The search for the superior is forgotten.

Electronics has made its contribution to the numbers hypnosis. When, by pressing a button, it is possible to turn up the names and addresses of all red-haired customers in cities of 10,000 population throughout the United States, the temptation is great to believe that by building larger machines and adding to the array of buttons there is almost no problem that cannot thus be disposed of.

We have gone through periods like this before. Susceptible as it always is to the infection of crowd psychology, the business community has raced after false gods in other days. Time was when Technocracy was the thing, but happily that particular bit of madness passed into oblivion almost before the printer's ink was dry on the pages of the books that proclaimed it. And then there was the furor over organizing industry along engineering lines: A few would manage, and all others conform to plan without the inconvenience of taking thought. It was never quite revealed how those who were to manage and those who were to be managed would be selected early in life, but the concept met the early demise that it merited. Engineering counts when it comes to putting rigidity into buildings; the exact opposite is required in human relations.

But the most depressing aspect of the numbers mania is that it results in the exaltation of the average. The discriminating search for the superior and the excellent in all things is forgotten.

What difference does it really make, for example, what the average man thinks about anything? If he is the median, he is not a leader, and it is the man out front who must take America ahead. Perhaps we should know the average man's opinion so that we may be alerted to our weaknesses, but society needs to follow the best, not the second best. To poll ten people on a street corner about the outflow of gold is to wallow in trivia. We need, instead, consuming zeal for the cult of the distinguished—in ideas, in minds, in character, and in leadership.

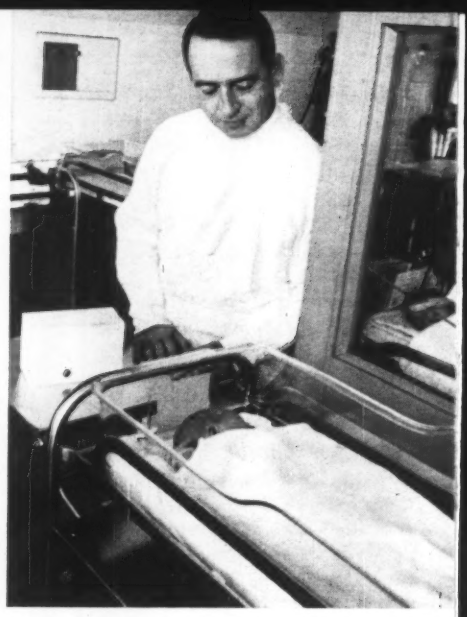
There are no shortcuts to wisdom that bypass thought and judgment, and industry would be well-advised to abandon its search for yardsticks, rules-of-thumb, and ready-made answers. An executive who is unwilling to stand or fall on his own evaluation of circumstances and his own decision betrays weakness. Implied in the whole of our educational processes and our free way of life is an emphasis on the significance and the particularity of individual choice. Whatever tends to glorify the average ignores the steady onward momentum of that national characteristic. Resort to the concept of the average in business must in the long run be self-defeating, for consumers soon will refuse to deploy, workers will not goose-step, and those thinking members of the general public who really form opinion, though often lamentably inarticulate, will in the end have their way.

Studies and surveys are only guides: They are not tablets of stone handed down from the mountain top to embody eternal truth. END

Resort to the concept of the average must in the long run be self-defeating, for consumers will refuse to deploy and workers will not goose-step.

How to Sell the $30-Billion Health Market

Year by year, steady as a pulse beat, new population and growing health needs are swelling its profit potential.



MECHANICAL MOTHER: *Resembling a table radio, the Securitone heartbeat simulator induces babies to sleep. Developed by Dr. Lee Salk, it costs about $30.*

WHILE a large part of the economy has been ailing, one group of companies has had little trouble in chalking up healthy increases in sales and earnings over the past year. The hospital suppliers, and even companies with a relatively minor stake in the nation's health, have lived well indeed.

"It's probably the fastest growing market in business today," says President Thomas G. Murdough of the American Hospital Supply Corp. Americans are already spending $30 billion a year keeping fit or getting cured. As Murdough and other suppliers see it, that figure is bound to rise. Among their reasons:

- **The population boom.** The American family of 1965 not only will have more purchasing power: It will also include more children and older people, it will be better educated, and it probably will live in or near a city—four marks of the groups having the highest need for health supplies and services.
- **Americans' growing health-consciousness.** Before World War II, for instance, only 40 per cent of the nation's births took place in hospitals vs. 95 per cent today. Another example: Soon after Mead Johnson brought out its now famous Metrecal diet drink, sales raced to a spectacular high.
- **Hospitalization.** Insurance now covers no less than 75 per cent of the American population. About one out of four policies covers "catastrophic" major medical expenses.
- **Stepped-up research.** It keeps making old ways obsolete, increasing the need for new equipment. Heart surgery, for example, was rarely attempted ten years ago. It can now be done in close to 200 hospitals, calls for an investment of about $100,000 in special equipment.

Though hospital executives demand extra appropriations to keep abreast of such advances, they are still a cautious lot, warns Dause L. Bibby, president of Remington Rand. Says Bibby: "The hospital administrator can't be pressured into trying something. He has to be shown carefully and logically how a new product will benefit his hospital. The old selling methods just won't do in this field."

High labor costs, however, are the administrator's constant headache, taking 65 cents of every dollar spent as opposed to 33 cents in industry. Companies which promise effective relief with such items as intercom equipment, record-keeping systems, and motorized beds have found a ready market. Most successful: products that demonstrably cut labor costs and improve patient care.

Today, the disposable plastic hypo-

Hospitals: Heart of the Health Market

The nation's 7,000 hospitals are big business. The largest single segment of the health market, they'll spend about $10 billion this year, employ 50 per cent more people than the car makers and oil refiners combined, have a total 1.6 million beds—and long waiting lists of people trying to get in them.

Non-profit voluntary hospitals—supported by contributions and patients' fees—are growing fastest. They account for 68 per cent of all admissions.

Although government hospitals have about two-thirds of all beds, they account for only about 25 per cent of admissions—most of their patients are long-term. Local (county and municipal) institutions account for the largest number of government-operated hospitals, but state hospitals have the greatest number of beds of any hospital category—more than 700,000.

Private hospitals run for profit are a slender (15 per cent) and shrinking share of the total. They are generally small, account for about 7 per cent of all admissions, 3 per cent of the total beds.

Large hospitals—those with over 300 beds—account for only 14 per cent of the total number but have almost two-thirds of all beds. There are also about 4,000 convalescent and nursing homes with 200,000 beds. Another 200,000 are scattered among infirmaries in schools, orphanages, prisons, homes for the aged, and other places.

dermic syringe has captured half the market, but when American Hospital Supply Corp. first brought it out two years ago, administrators and nurses recoiled at the idea of tossing out a perfectly good medical instrument after only one use. At fifteen cents a throw-away, the new plastic needle cost only about one-tenth as much as the traditional glass hypo, eliminated the labor involved in dismantling, washing, sterilizing, storing, inventorying, and sharpening. None of these arguments spurred sales. The clincher for the disposable hypo, which is factory-sterilized, was that it reduces the spread of staphylococcus, which has thrived in hospitals.

The list of disposables now includes surgical masks, gloves, gowns, drapes, basins, and bedpans. One of the biggest sellers is a packaged, prethreaded needle and suture, produced by American Cyanamid. To replace the customary obstetrical pack of some two dozen stanching cloths which had to be sterilized for reuse, there is now a factory-sealed package of special paper selling for $5. Still being field tested is a disposable plastic-handled scalpel.

Medical experts say that the best hospitals today provide about three times as many services to the patient as did the typical hospital 30 years ago. The U.S. Public Health Service estimates that it will cost—at today's prices—$3.6 billion to bring the nation's older hospitals up to the mark.

Eyeing the modernization budgets, as well as the projected $13 billion in new hospital construction, Carrier Corp. says the percentage of air-conditioned hospitals will rise from today's 13 per cent to 40 per cent before the decade is through. Divco-Wayne, a major manufacturer of ambulances, looks for a 50 per cent sales rise by 1965. Chemetron Corp. has targeted a 30 per cent rise for next year. A new entry on the scene, American Seating Company recently introduced hospital room furniture and expects hospitals to edge out religious institutions within two years to become its No. 2 market (No. 1: schools).

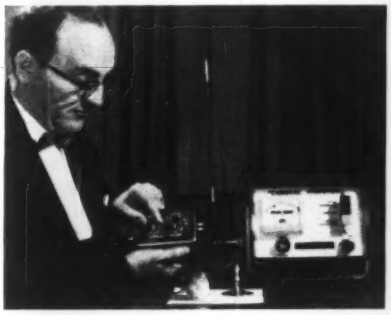
To hypo sales, manufacturers are picking up companies in the health field and adding special lines for the medical market. The Brunswick Corp. bought Roehr Products Company, DeLand, Fla., manufacturer of suture needles, early in 1961, a year after acquiring the A. S. Aloe Company, second largest distributor-manufacturer of medical equipment and supplies. Recently the Simmons Company, bed manufacturer, added both the Hausted Manufacturing Company, a Medina, Ohio, maker of wheel stretchers and American Sterilizer Company, which boosted sales 80 per cent since 1956, earnings 162 per cent.

Last year, IBM set up a special sales group to go after the paperwork plague that is attacking U.S. hospitals. Thanks to simplified accounting systems—tied to its own equipment—Burroughs now claims it sells as many accounting machines to the medical market as its next three competitors combined.

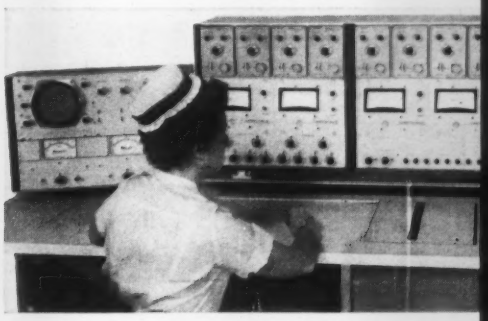
Not all these customers are in hospitals. Harking to the doctor's wail that he spends 20 per cent of his time on paperwork—insurance, tax, and workmen's compensation forms, monthly billing, lab reports, and correspondence—office equipment makers have begun to nose out a new, fast-growing market.

In its first mailing of sales promotional material to 137,000 doctors, Pitney-Bowes was happily surprised by a 17 per cent return, as against the usual 5 per cent. Explains general sales manager Blynn B. Beck: "In approaching doctors we have an even better case than in an ordinary business office, since the pay of their secretary-nurse-receptionist is high." The

Just What the Doctor Ordered



The Cardiac Pacer (left) stimulates a faltering or stopped heart through chest electrodes. When the Monitor (right) becomes available next month, the cardiac patient will have a bedside system that monitors the heart, automatically gives the needed stimulation, sends a radio alarm to a doctor.



To ease the nurse shortage, Roosevelt Hospital, New York, uses electronic monitoring equipment in a convalescent ward. At a desk-console, a nurse observes the temperatures, heart rates, respirations of seventeen patients. Electroencephalograms and electrocardiograms are read later by a physician.

Individual intercoms reassure patients in the new Memorial Hospital of Long Beach. Each patient can talk directly to the nursing station, thus relieving nurses of frequent trips. Each unit has a speaker for radio programs, continuous music, or TV audio. TV sets are operated from the control panel.

The non-institutional look in hospital room furniture shows up in the recently introduced line from American Seating Company, a newcomer to the health market. The motorized push-button bed can be operated by the patient. Pushing the concave buttons lowers the bed, pushing the convex ones raises it.

Sales Potential: Busting Out All Over

The sales prognosis for health products in the decade ahead is most encouraging. Not only will the population be about 32 million larger by 1970 but the high consumers of health products and services will bulk much larger too. For instance:

- Oldsters will outpace total population growth. By 1970, every eleventh person will be past 65.
- There'll be 46 million new babies born during the decade—a 26 per cent rise over the number born during the fertile 1950's.
- College enrollments will nearly double in the 1960's. Suppliers' market studies show that college graduates receive about a third more hospital care than the average person, simply because they're more aware of health needs and better off financially.
- The trend to the cities and suburbs will continue. City folk use hospitals about 20 per cent more than their country cousins.
- The rate of hospital utilization (patient-days per 1,000 population) has risen about 20 per cent since prewar times. People today average, over the course of a lifetime, almost one day a year in a hospital.

Despite the addition of about 50,000 beds this year, in order to meet the U.S. Public Health Service standard of 13 beds per 1,000 population we need an additional 1 million beds, at an estimated cost of $23 billion.

- Markets for most consumer "health" products are largely untapped. For instance, although hearing aids are now selling at a $100 million annual clip, the market penetration has reached only 25 per cent.

company estimates that only about 10 per cent of the doctors' offices that could use a postage meter actually have one.

Sales will go up even faster, the equipment makers say, as doctors band together in group practices. The American Association of Medical Clinics expects 70 per cent of the practicing physicians to be in group practice before the decade is over.

Symptomatic of the growth expected is the Rem Rand forecast that its present medical market sales will double by 1965. At Dictograph Products, Inc., 1965 sales of internal communications equipment to hospitals and MD's are projected at 25 per cent of its total volume, against only 10 per cent today. Minneapolis-Honeywell is planning on a five-fold increase by 1965 in medical instrumentation sales.

"Compared to industry and defense," says K. C. Rock, manager of Minneapolis-Honeywell's Electronic Medical Systems, "the medical field has been treated like an orphan by instrument manufacturers. But now doctors can expect considerably more attention—and equipment with the latest electronic measuring and recording techniques."

Conventional stethoscopes are already being replaced by ultra-sensitive, portable electronic audiometers, which eliminate the need for long experience in diagnosis. With a newly introduced compact, transistorized, portable electrocardiograph, physicians can make more precise on-the-spot diagnoses. Even the glass thermometer is giving way to an electronic model. Touched to the patient's skin, it registers his temperature faster and more precisely.

Until now, some of this equipment has been available only in extremely specialized research labs. But with recent shifts in medical techniques, general hospitals are demanding advanced instrumentation that records diagnostic data faster and more exactly, while simultaneously recording physiological reactions.

Among the many recently developed products that may have a bit more staying power than vibrating hassocks with "healthful massaging power":

- A radar-like obstacle-detector for the blind. Resembling a flashlight, it emits a bounced-back signal that warns of obstacles, as well as sidewalk curbs, up to 20 feet away.
- A low-cost ($45) electronic artificial larynx, introduced late last year by Bell Laboratories for the 2,500 people who annually must have their larynxes removed, losing all means of natural speech.
- Heart pacing devices. Developed by Westinghouse and others, they enable cardiac sufferers to go about their business while small electronic devices keep the heart-beat normal.

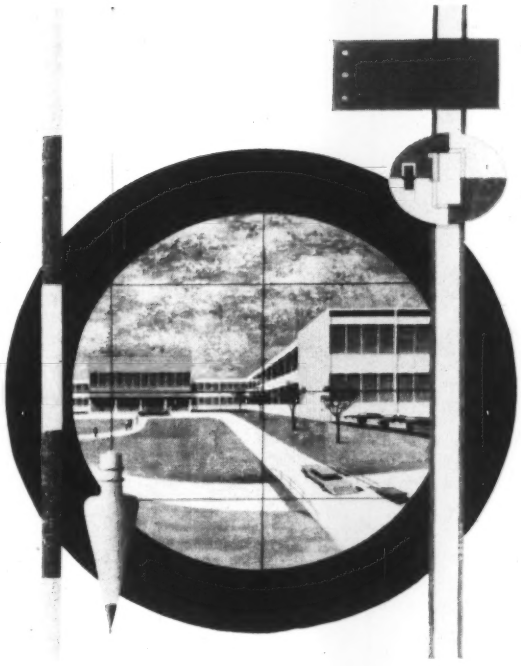
To compete successfully, say the experienced suppliers, you need a sizable budget for R&D. They also caution that sudden shifts in the market —such as the coming of disposables —can outdate products overnight. Catching up can be expensive: Price tags on equipment to produce factory-sealed and sterilized products, for instance, are very high. Even when manufacturers can pass along cost savings to their customers they find that low price is often the wrong sales pitch. According to Bertran F. Ames, vice-president of Plextone Corp. of America, paint manufacturers: "Salesmen make a mistake when they base their argument on price. Minimum maintenance and reliability are much more important in the hospital and medical field."

Despite the vexations, the years ahead look as bouncy as a new-born babe to most companies that sell the health market. American Hospital Supply Corp., the Sears Roebuck of the industry, went from $2.5 million sales in 1940 to $100 million last year, expects the recent annual growth rate of close to 20 per cent to continue. This would double sales before the decade is half over.

Founded by Chairman Foster McGaw back in 1922, AHS both distributes and manufactures; its own products now account for 25 per cent of sales. Moving into a field handled at the time by local marginal operators, McGaw put the industry on a national basis, sought out IBM-type salesmen to handle his constantly growing lines instead of the traditional high-pressure reps. Along the way, he tried to boost the job of hospital administrator to a professional level by helping to set up the program in Hospital Administration at Northwestern University.

Although AHS earnings in the past few years have not moved up as rapidly as sales, the lag has been slight. Says President Thomas G. Murdough: "The hospital supplies industry is not entirely recession-proof—but it is one of the last to slip and one of the first to recover."

THOMAS KENNY



SPECIAL REPORT

U. S. manufacturers are putting their money—and it's a lot of money—into production facilities. At home and abroad, they're raising new plants, modernizing old ones, adding wings, labs, technical service units—and stretching the dollars as they've never been stretched before.

UPGRADING INDUSTRY'S PLANT

"THERE are times," remarks one top executive, "when you just can't stop building." By all the signs, 1961 is one of those times. For all the slowdown in business over the past year, the nation's executives are continuing to spend heavily on new brick & mortar. In the first quarter of this year alone, manufacturers were building new plants and upgrading the old at an estimated annual rate of $14.3 billion, just ahead of their $14.1 billion rate in the same period of 1960.

That spending, moreover, came from a broad range of industry. As Government figures show, chemical manufacturers probably will spend $1.7 billion on new and old plants during all of 1961, up from $1.5 billion last year and far above 1959's $1.2 billion. The food and beverage industry is equally active. It will probably spend a healthy $1 billion this year to expand its plants and add new equipment.

Why are hard-headed business men pouring money

This Special Report was prepared under the direction of Senior Editor Melvin Mandell

into plants at a time when every penny of profit is harder and harder to come by? The pinch on profits itself supplies one answer. With profit margins thinning, business has to wring more from what it already has—by modernizing old plants and bringing them to new peaks of profitability and efficiency.

Normally, of course, two thirds of every building dollar goes into new machines, materials handling equipment and other forms of plant improvement. This year, though, manufacturing executives probably will raise that share to 70 per cent. Even an industry like steel, which has been idling along at half its rated capacity, is likely to spend no less than $1.5 billion to modernize its hearths and enable them to turn out more and better steel at less cost.

Not that business men are calling a halt to new plant construction. For a broad segment of industry, there are compelling reasons to break ground in 1961. Take the business opportunities abroad. As foreign markets continue to increase in attraction, so do the number of plants being built in Germany, France, Japan and other countries. In fact, there is little doubt that American business will invest a fat $2.5 billion in foreign plants this year.

There are equally good reasons behind new construction here at home, and the growing competition from both foreign and American manufacturers is one of them. As a recent DUN & BRADSTREET survey pointed out, American manufacturers see new product development as the No. 1 way of getting out of a competitive bind. To develop those new products, business men are virtually being forced to build new research laboratories and similar facilities. Not surprisingly, the use of the research lab on the industrial scene was a prime topic at the DUN'S REVIEW editorial roundtable on construction. As Ernest Drew, production vice-president at Continental Machine, Inc. pointed out, even if sales are slipping, companies now know that they must expand their research facilities.

That new emphasis on research puts another item on industry's building list. More and more, business men are building technical service laboratories to bridge the gap between the researcher's test tubes and the salesman's order book. Generally spartan in appearance, and as functional as a button, these laboratories are proving a prime tool for attracting new customers and holding on to old ones (see Section IV, page 81).

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I. New Profits from Old Plants

Two-thirds of industry's plant investment goes into vital modernization and expansion. Getting the most for the money is the problem.

II. Second-Guessing Comes High

Locating a plant site today is like running an obstacle course—and the stakes are too high for just "muddling through."

III. How to Write Your Own Ticket

Overseas plant construction scares off a lot of U.S. companies who don't know what to do, when to do it and where the dangers lie.

IV. One Boom That Won't Quit

Industry is putting big money into customer service labs that prove out materials and equipment under factory conditions.

V. Brick & Mortar Come of Age

Construction technology, shackled by tradition, inertia, and restrictive codes, is beginning to make progress that will save industry millions.

The population boom is also putting leverage behind business men's building. As population climbs, the shifting, growing mass of consumers means that manufacturers have to build new plants and warehouses to serve them and to provide fast delivery for their products.

The population boom, in many cases, is causing even companies with acres of plant to build still more. Consider the vast, sprawling General Motors Corp. Though its plants virtually blanket the entire nation already, GM is putting up a new Chevy car and truck assembly plant in California to feed the fast-growing San Francisco bay area.

But if business is continuing its construction program in lean times, it is doing so with a major change in blueprints.

For long years, executives have not hesitated at all to outdo each other in the size and appearance of their plants. Now, though, their key words have become economy and efficiency. Recognizing the increasing difficulty of pinpointing consumer and industrial demand, they are insisting on greater flexibility of design and providing for inexpensive future expansion, even though it raises costs today.

The Westinghouse Electric Corp., for example, eyeing the ever-fickle consumer, knows that in five years' time any of its plants may be turning out entirely different products. So it insists, as it has in the past, on building plants which can be easily switched to other types of products. "It's the only way for the market we serve," notes Burr Tupper, director of the company's works engineering.

That is not the only change. With dollars tight, industry no longer can afford to make a mistake in locating its new plants. These days, companies realize that one way to cut the operating costs of a new asset is to use sophisticated methods of choosing and exploiting a site (see page 59).

After fifteen years of unprecedented new construction, then, American manufacturers are studying their gigantic production and associated facilities with a critical eye. They are still building at a husky rate—as they will continue to do over the next ten years. But they are also demanding 100 cents' worth of value for every dollar in site and structure. "We always said that in the past," sums up one business man. "Now we really mean it."

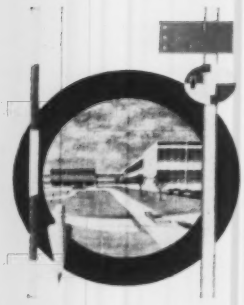
TUPPER: *"It is very difficult today to sweat dollars out of the frame of a building. There are more opportunities for savings in electrical and mechanical services."*

EGERTON: *"Most businesses have anticipated plant capacity far into the future in catching up with postwar shortages."*

BAXTER: *"We find that the inevitable period of downturn is a good time for extensive modernization."*

BYRON: *"Since it would cost twice as much today to replace many older plants, modernizing makes economic sense where it is practical."*

PEARSON: *"If a new plant is justified economically, any time can be a good time to build."*



I MODERNIZATION AND EXPANSION

Industry spends $10 billion each year on modernization and expansion programs. What's the payoff on its investment?

New Profits from Old Plants

RIGHT now the Royal McBee Corp. is installing a million dollars' worth of conveyors in its old typewriter plant in Hartford.

Western Electric is in the midst of a multi-million dollar renovation of its venerable Hawthorne Works in Chicago.

R. C. Mahon Corp. has just spent $600,000 on giant tape-controlled drill presses for its Detroit plant.

General Motors is tacking an escalator onto its Tarrytown, N.Y., assembly plant to carry workers over a highway from the parking lot to an upper floor.

What these companies spend is just a fraction of the almost $10 billion American manufacturers paid out last year to bring domestic and foreign facilities up to date and enlarge them. The tab for completely new plant and equipment was only half as high.

Catch up to forge ahead

"As we get deeper into a buyer's market, we've got to get more and more efficient use of what we've got," John Baxter of Rapids-Standard reminded a DUN'S REVIEW roundtable. "That means plant modernization."

Lower per-unit production costs and expanded capacity that may give a company the jump in competing for customers are the most common reasons for modernization. But they're not the only pressing ones. Many manufacturers spend big money to keep ahead of their competition in the labor market, too.

C. E. McNeal, chief plant facilities engineer for American-Standard, reports that after other outfits built new (non-competing) plants near the company's Baltimore factory, turnover rocketed to 120 per cent. A costly program to improve working conditions was launched. After modernization, turnover was down to 19 per cent and productivity climbed 45 per cent.

Western Electric Company goes beyond production machinery in modernizing older plants, says R. F. Byron, superintendent of plant engineering, in part because it wants to attract young workers.

There are signs that older workers are not immune to the charms of "redecoration," either. A few years ago, Westinghouse renovated one of its old multi-story plants in Boston, adding brighter new lighting and updating the interior, the exterior, offices and the employee cafeteria. According to one Westinghouse executive, increased productivity was the result.

Unfortunately, manufacturers find it more and more difficult to handle modernization in an efficient manner. If it is a scheduled, year-around operation, planning and execution personnel are used to the fullest and breaks in production avoided. But with markets shifting as never before and new competitors going after old customers, companies are suddenly finding small, steady increments in efficiency or capacity—or both—are not enough. Heavy upgrading is often a necessity.

For those that lack the cash to put up a new facility and the land to add on a new wing, renovating is the only solution. On the surface it looks like the cheapest one, too. But Carl Gieringer, president of Cincinnati Time Recorder Company, points out that banks are reluctant to advance long-term loans on modernizations. As a result, a company may have to pay back just as much each year on a renovation as for new construction—though for a much shorter time.

Byron of Western Electric warns of a trap some companies have walked into with their eyes closed: Putting a lot of capital into an older plant can later force a company to hold on to the facility beyond its useful life. As H. W. Worth of Minneapolis-Honeywell puts it: "Modernization is only good up to a point. Then you must go out and start building a plant from the ground up."

Another disadvantage to extensive modernization is the interruption of production schedules. To get around

this, some companies renovate during slow seasons, second shifts, or on weekends—though weekend work can mean a whopping burden in overtime pay.

In spite of these drawbacks, modernization offers compensating rewards. None of the workforce is likely to be lost, as in a relocation. Recruiting and training costs are kept low.

If, during a modernization program, a wall, roof, or floor is removed to make way for new equipment, the cost of removal can be "expensed." A stronger floor put in as a replacement, however, must be depreciated in the normal manner. Any new production equipment or materials handling gear installed as part of a modernization must also be depreciated at the same rate as new equipment in a new plant.

There are no handy formulas or rules of thumb that indicate whether a plant is worth the sizable investment that extensive modernization entails. The men who've been through

Machines Come First

Most of the money industry spends on plant modernization and expansion still goes into production machinery—and always will. Through steady replacement of older, obsolescent machinery and adoption of improved methods, a company can usually achieve substantial increases in capacity and efficiency without adding to plant space.

One striking example of this industrial legerdemain: the experience of the Wallingford (Conn.) Steel Company, a subsidiary of the Allegheny-Ludlum Steel Corp.

The company converts stainless steel foil, which it also uses to produce tubing. One key step in its operations is fine grinding and polishing of the foil in coil form.

Based on a careful investigation of "pay out," the company a few months ago replaced two grinders, one fifteen years old, the other twenty. In their places came a single new grinder, designed on the basis of the Behr-Manning "wet belt" grinding process.

The new machine, which costs about $300,000 with accessories, takes up about two-thirds as much room as the two older machines, which are still used occasionally when the new grinder is shut down for maintenance. The machine Wallingford bought can process as much foil in 77 shifts as the older equipment could grind in 195 shifts. In addition, it uses far smaller quantities of expensive grinding materials and oil than the old grinders.

At this rate, figures Philip S. Gittings, manager of industrial engineering, the new machine will save $118,000 a year in direct labor costs and materials. Without considering other benefits, he estimates it should pay for itself in less than three years.

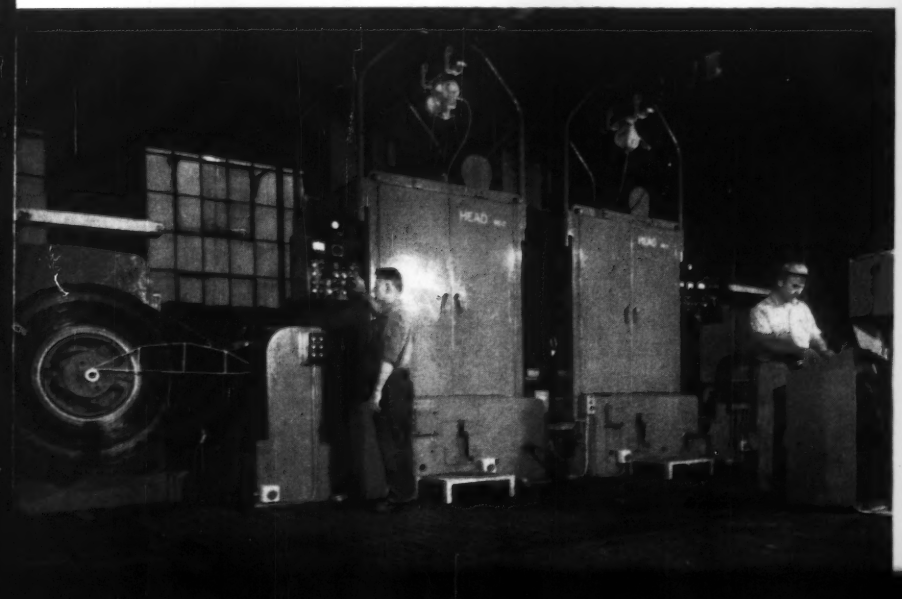
The other benefits are substantial, though. Because the controls on the new machine are so much finer, it can process lower-grade coils that were formerly rejected.

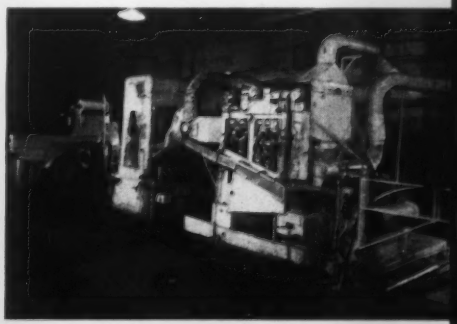
Although the company doesn't lose too much money on rejected coils—they are returned to the supplier—this greater latitude means faster service to customers, since it used to take weeks for a supplier to replace a rejected coil if it was made of a rare stainless steel.

An additional advantage is the fact that the new Hill-Acme machine can grind foil much flatter, enabling Wallingford Steel to meet the very critical needs of the expanding missile industry. Only a fraction of the output from the older machines was flat enough—and it was an unpredictable fraction at that.

But one of the new grinder's biggest assets is its greater productivity. It can handle practically all customer needs in one daily shift, eliminating the expense of night shifts and overtime.

ONE FOR TWO: *This new foil grinder at Wallingford Steel replaced two older machines (see photos, right). The operator at right is checking thickness and flatness readings from an x-ray gauge attached to the machine.*





it advise: "Study each case on its own merits, with all the vigor that you'd use in approaching a new plant construction project."

In general, the older the plant, the less likely that it's worth a major job of overhaul. On the other hand, a newer plant with low-ceiling clearances may be a bad candidate for surgery. Unless the roof can be raised easily (not too hard for a single-story factory), a low-bay building doesn't take the latest ways of handling in-process materials by high-stacking or overhead conveyors.

An older factory with a past history of high-grade maintenance is a good bet for modernization. Before stamping O.K. on a proposed modernization plan, the top brass of Royal McBee asked for estimates on building a typewriter plant in Hartford's suburbs. The new facility, they learned, would cost $10 million, including the cost of moving. By accepting the slightly less efficient alternative—modernization—the company will invest less than a million dollars.

continued on page 48

Industrial Metamorphosis

How a magnesium rolling mill became a Saran Wrap plant in only six months.

Several years ago, Dow Chemical's top management made two important decisions. The first was to move the company's 10-year-old magnesium rolling operation away from the main area of operations in Midland, Mich., and closer to actual and potential markets. The second was to start commercial production of a new film now known to every housewife as Saran Wrap. Although no one realized it at the time, the first decision made it possible to begin highly profitable production of the plastic film eighteen months sooner than expected.

When the man in charge of the film project, Walter Klein, heard that the rolling mill was to be moved out of a very serviceable building, he approached top management. Company officials had planned to turn it into a warehouse, but Klein, pointing out that it was only a mile from the saran resin plant, soon had the appropriation he needed for conversion.

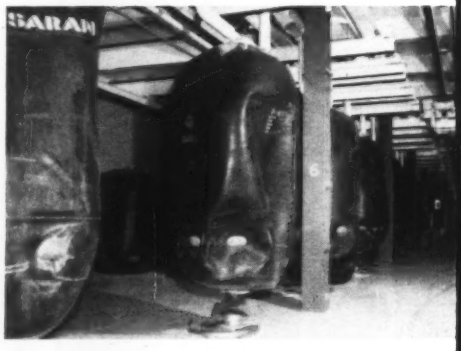
Ignoring the trend toward one-story plants, Klein and his engineers split the high-bay building into a three-level structure over most of its length (see photos of each level).

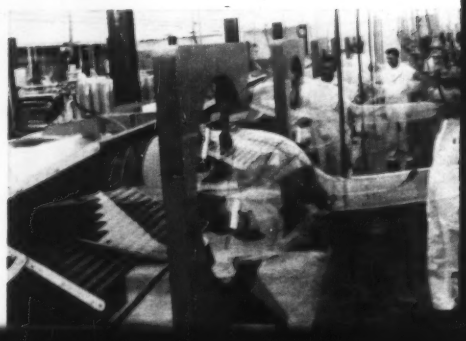
Renovation of the plant began in May and by November, Saran Wrap was coming off the assembly line. Klein estimates that Dow Chemical saved half the cost of a new plant and —even more important—launched volume production of its profitable new film eighteen months ahead of schedule. Despite a steady rise in consumer demand for the wrap, he adds, the plant, renovated with expansion in mind, continues to meet all orders on a one-day notice.

After Dow Chemical's high-bay rolling mill was converted into a multi-story structure, the top floor became a warehousing area for materials, connected directly by conveyor with the packaging set-up on the second level. The rest of the second floor consists of a storage area for the Saran polymer, which is brought to the plant in sealed bin trains pulled by a self load-unload truck from the polymer plant a mile away. A single man operating a simple monorail overhead crane moves the rubber bins into position for gravity feed into vertical stand pipes that lead into the line of extruding machines. On the first level, resin is extruded in cylinders which are continuously moved over a huge cooling bubble. When the bubble is flattened by the rollers, it forms a wide double-layered roll of film. The rolls are then slit and moved up to the packaging area by overhead conveyor.

BEFORE

AFTER





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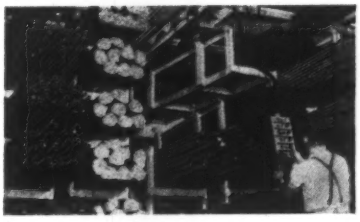

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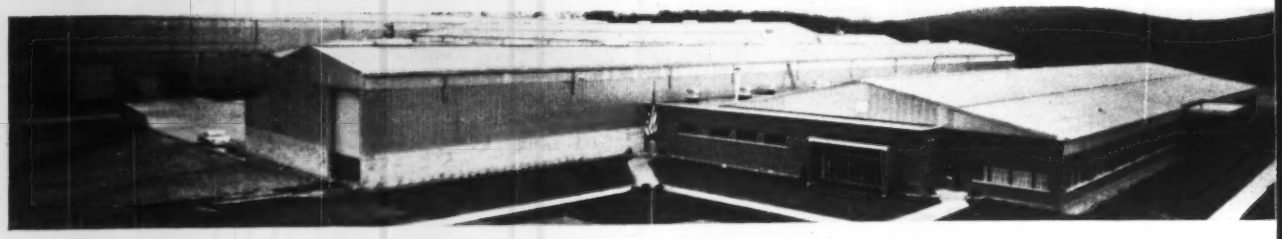

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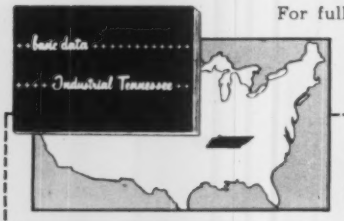

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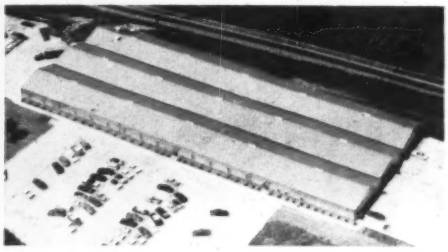


BEFORE: *The original three-bay pre-fabricated plant Minneapolis-Honeywell built in Wabash.*

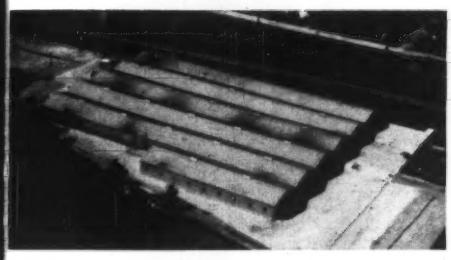
continued from page 44

An important factor in the decision to modernize instead of build was the excellent condition of the building and its equipment. Royal McBee annually spends about $375,000 on building maintenance and about $500,000 on equipment replacement and maintenance. Less is being spent on the modernization than on normal maintenance.

What Royal McBee is planning is a complete overhaul of the methods used to handle materials in its four-story plant, which dates back in 1908 and was last expanded in 1934. The upper stories can't support the larger hand and motorized trucks that now move all materials from floor to floor. But by September of this year, a million-dollar conveyor system running throughout the building will replace the hand trucks. When the last one leaves, the aisles will be made narrower, leaving more room for production. At the same time, the production line is to be completely rearranged to take advantage of the new flow of materials.

Alan Cooke, plant manager, claims that the modernization will cut production costs by $1 million annually, which means that the entire expense will be recouped in only a year. Most of the savings will come from eliminating the truck handlers, although none of them will be laid off—Royal McBee will just let normal attrition take its course over the thirteen to fourteen months that it will take to revamp the building.

The company carried on an extensive employee education program after announcing the modernization program, and there has been no drop in production. If business picks up, the company can easily handle the load. It also gained an estimated 20 to 25 per cent increase in plant ca-



AFTER: *The Minneapolis-Honeywell plant today, with bays added in 1959 and half-length bay put up last year.*

pacity as a result of the renovation.

Every executive who has been through an extensive modernization stresses the importance of letting the workforce know what's going on. In many instances, local union officials are told about the programs long before they go into effect. Securing union and worker cooperation well in advance, executives report, is the best way to avoid severe losses in production and delays.

Expanding a plant is obviously a lot easier than wholesale renovation. A new wing can usually be tacked on to an older plant without losing a day's production. For companies that have space available next to an older building, expansion is the most attractive way of adding capacity—or making room for more efficient, cost-cutting machinery.

The Minneapolis-Honeywell Regulator Company, which made two expeditious expansions of the same plant within two years, says it is convinced that pre-fabricated plant construction is the secret of cost-cutting flexibility.

When the company's Wabash, Ind., plant was built in 1958, a site was selected that was large enough to handle predicted expansion for the next eight years. With this in mind, H. W. Worth, manager of operations in Wabash, decided pre-fab steel construction offered the greatest flexibility for the future.

When he submitted his construction plans to the company's top management, however, they were not received with much enthusiasm. Minneapolis-Honeywell had never bought a prefabricated building, and the company was hesitant to try one out in Wabash. Top management gave a reluctant "go-ahead," more or less on their faith in Worth.

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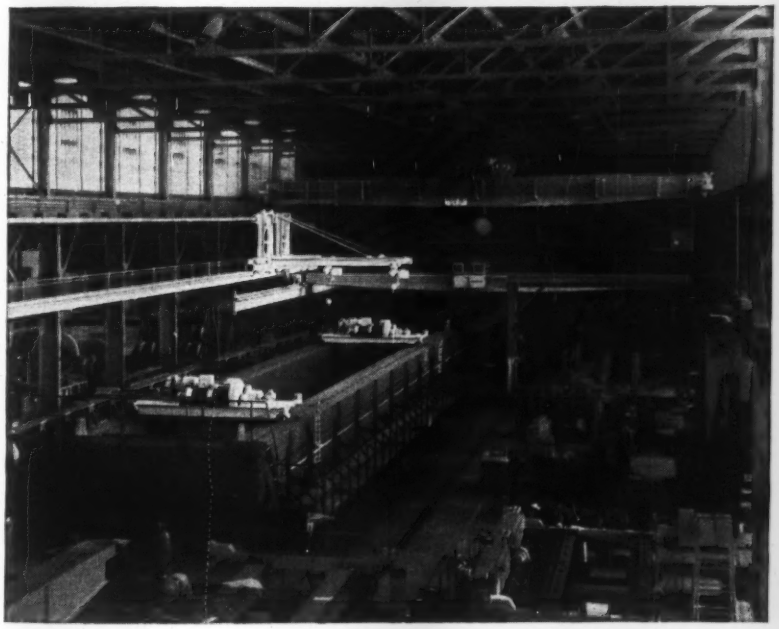

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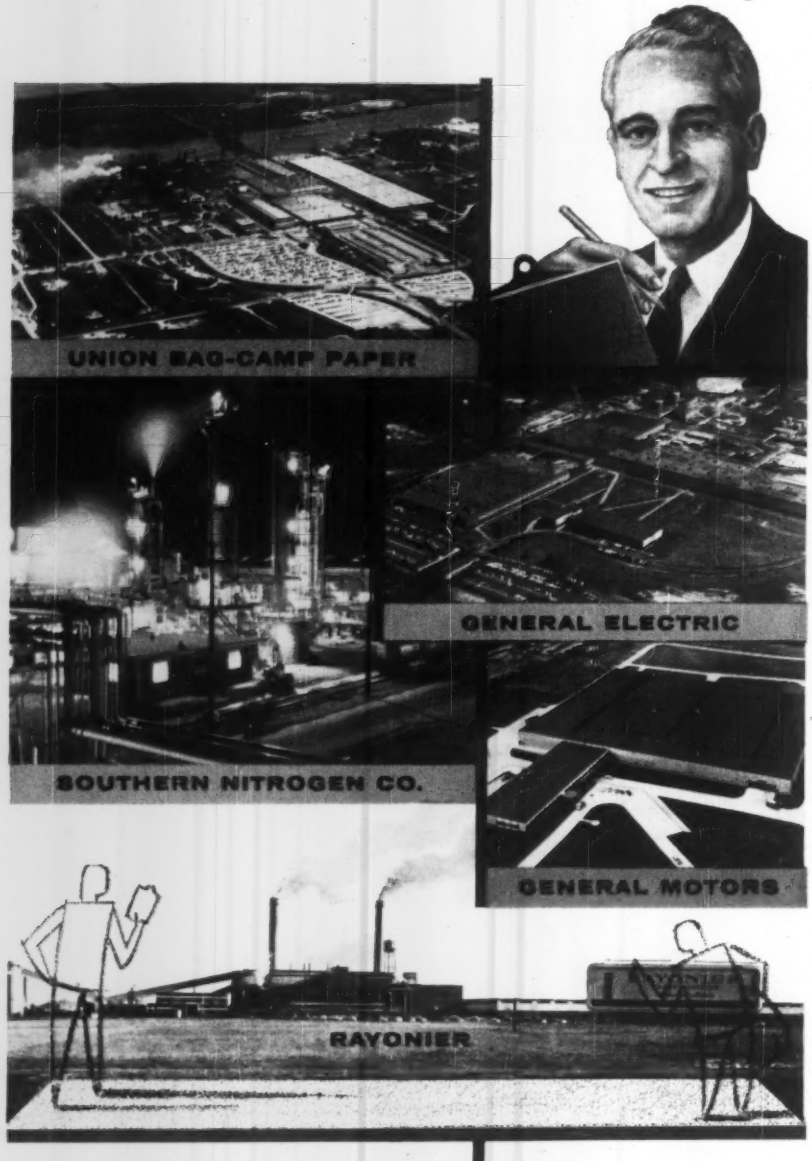

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for one leading supplier of pre-engineered buildings, Worth was able to buy the initial 58,000-square-foot building for $7.15 per. The plant consists of three parallel 50-foot clear-span bays, each 380 feet long, (see "Before" photo on page 48), with a steel panel outerwall and transite inner wall which repels the sparks from heavy welding operations. The roof is galvanized steel. The comparatively low price per square foot includes heavy wiring for the welding machines and six-inch thick hardened concrete floors (eight inches thick in some of the storage area).

Within a year after the plant was completed, demand for the division's products had grown so fast that the first expansion was ordered. Two more 50x380 foot bays were specified. Because the comparatively heavy cost of gouging a sewage drain in solid rock had gone into the first building's budget, the expanded section cost only $4.80 per square foot. Without interrupting production, two new bays went up beside the "old" building. The last step in construction was to pull down the sidewall separating the buildings and re-erect it as the outer sidewall of the addition. Last year the same process was repeated for a single-bay section half

Cook-It-Yourself Company Cafés

In the near future, some companies are going to cut down on expensive service and equipment in their plant cafeterias by offering cook-it-yourself meals. Employees will select precooked, individually packaged dishes, then dunk them briefly in boiling water or stick them in an infrared oven for heating.

This is only one new possibility in employee facilities predicted at the recent Industrial Building Congress by Martin O'Shaughnessy, administrator of food services, Radio Corp. of America. It's also one way to cut down on the high cost of providing "gourmet" meals for the discriminating employees who today expect top management to give them a lot more than just plain meat, potatoes and gravy.

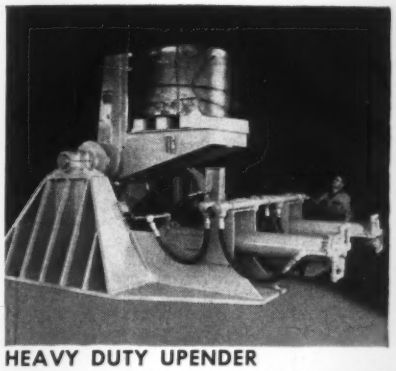
CUNNINGHAM: *"About 50 per cent of today's plants now operating were built either before or during World War II. That's a lot of obsolescence."*

the length of the original building (see "After" photo). Early plans to face the front of the building with brick have been dropped.

Complete pre-fab construction is not the only novel feature. The adjacent upright legs of the frames for each parallel bay were deliberately erected 18 inches apart to provide protected space for wires and other service equipment. Step-down transformers hung in these sheltered spaces provide power for older welding equipment, which operates at a lower voltage than the more efficient 440 volts standard in the new building. Plant offices are also of pre-fab metal panel construction and have been shifted quickly with each expansion.

Confronting the happy experience of this division, M-H has now done an about-face: When a new plant was needed in Akron, pre-fab steel construction was specified — with unqualified top management approval.

In the last few months, a number of manufacturers have been finding a new reason to expand. By building on to their newest and most efficient plants, they can absorb production from older, inefficient, or high-cost facilities that it's cheaper to close than modernize. The Fairchild Camera & Instrument Corp., for one, is expanding its West Coast plant because it has decided to close three



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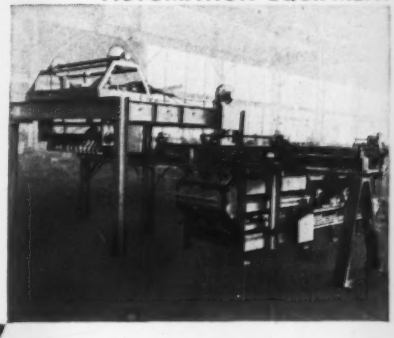

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Cost-Cutting Conversions

To conserve capital or time or both, many companies are taking a searching look at old, unused buildings around town. One big Midwest road-building equipment maker bought a handsome mansion a few years ago, converted it into company headquarters. The move added more than prestige—it also freed office space in the main plant. Another manufacturer—of electronic controls—bought the county poor farm and is converting it into a research lab! The small, thick-walled rooms make excellent office cubicles for scientists who like privacy.

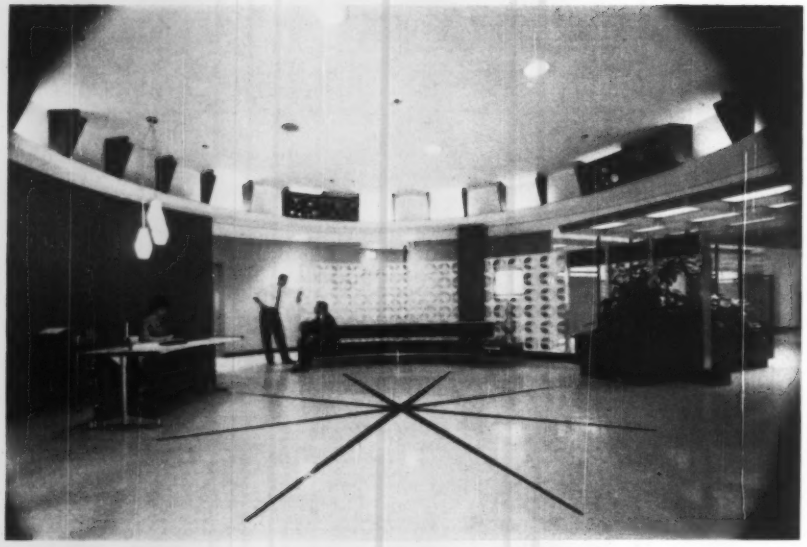
At one DUN'S REVIEW Roundtable, C. E. McNeal of American-Standard told of an old warehouse that was converted into a production plant at minor expense. After the thick brick walls were raised four feet, a new concrete roof was installed, supported by wide-spaced columns. A new floor was put in over the basement, which is used for overflow storage of the material processed in the plant. Total cost: $400,000.

When a Mead Corp. executive heard that the company wanted to set up its New Products package development group and technical services lab in Cincinnati, he called attention to the abandoned buildings next to a company paper mill there.

The site met the company's criteria: a central location, ease of access to a large airport. More than one concern has been stung attempting to salvage a building beyond repair, but Mead's inspection confirmed that the structures, last expanded in 1939, were sound.

According to Jean Hunter, Mead spent $7.80 per square foot for the abandoned building and land, $5.20 more for the modernization, and got facilities that would have cost $26 per square foot to build new. Renovated, the buildings are so attractive (see photos below) that few visitors realize they were started back in 1909!

Small photo at right shows how the interior of Mead's "new" acquisition looked before conversion. Today, it is difficult to believe that this building is 52 years old.



older plants on Long Island, where it's had a lot of labor difficulties.

Closely related to this type of expansion is the enlargement of one central plant to replace scattered facilities leased when demand unexpectedly outpaced production. A few smaller companies that have never before experienced a drop in sales are using the present downturn to consolidate and get themselves organized.

According to Charles S. Beshore, however, the Automatic Transportation Company has been squeezed for profits during periods of *highest* output. The reason? High overtime rates. To avoid profit-cutting overtime during its next boom, the Yale & Towne division is carefully planning an expansion that will give it labor-saving production facilities while adding as little as possible to fixed overhead.

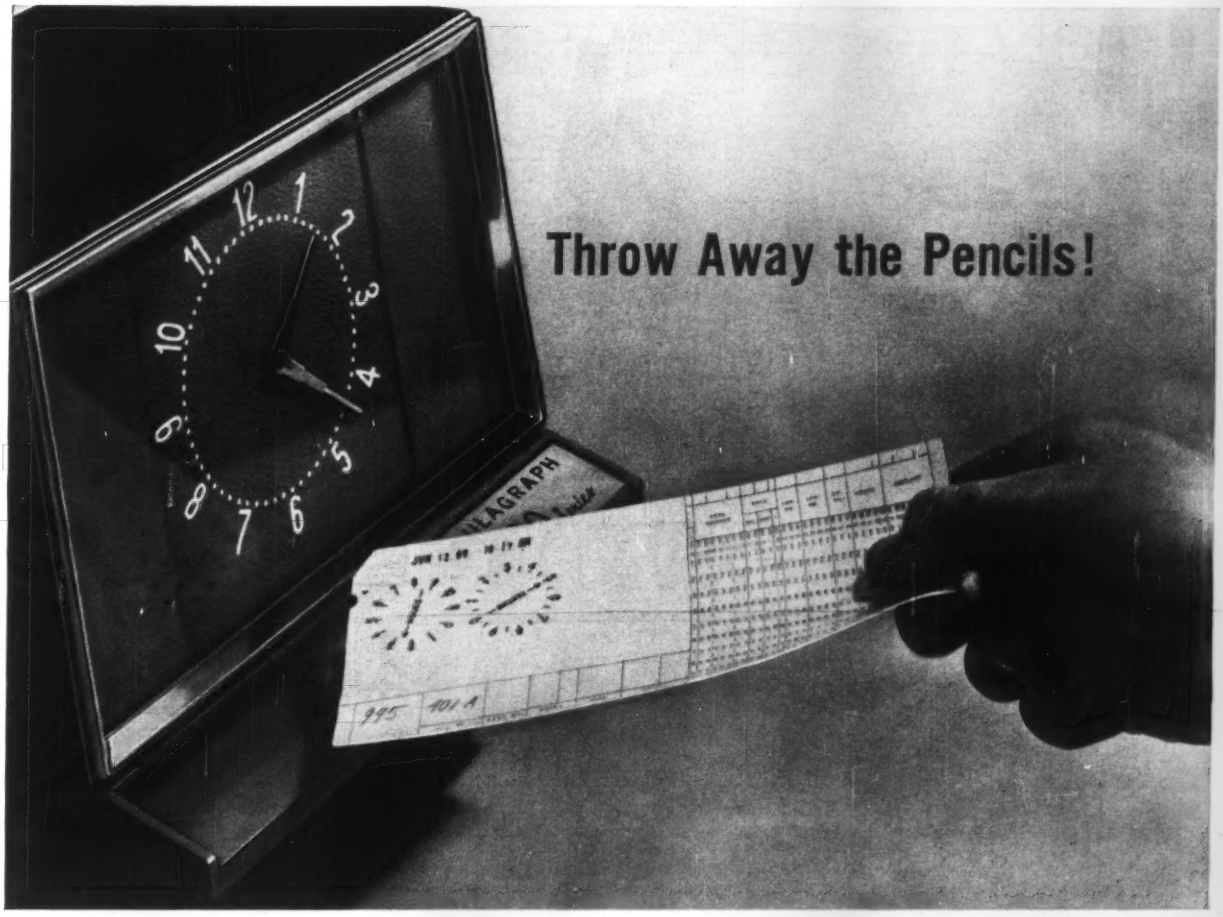
When companies expand today, they make a break from the industrial architecture of the past. Bright prefab wings grow out of old red brick buildings, aluminum curtain-walls abut heavy masonry monuments. There is a simple reason for the diversity: Older styles are costly to duplicate. Industries go to the best type of modern construction suitable to their purpose.

Companies that are boxed in on all sides, a common situation in the old-style industrial complex, literally face a blank wall when they need added capacity. To them, ROOM FOR EXPANSION—that staple of the suburban plant site ad—has an airy appeal that causes worry about the costs of land to evaporate quickly. The Cincinnati Time Recorder Company, however, found its room for expansion in a downtown section of that sizable Ohio city, now advises other companies to search for what it hit on by chance.

About a year and a half ago, when the company needed more space, President Carl K. Gieringer considered two alternatives: a long move to Kentucky or Tennessee where labor rates are lower, or a short jump to the suburbs of Cincinnati where nearly all the workforce could be kept intact.

Because of the high labor content of the company's extremely varied product line, the move South was rejected: The cost of training a new production force of 200 was prohibitive.

The suburbs, however, did not attract Gieringer, who twelve years be-



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BOISI: *In plants going up today, the actual life expectancy most companies plan for is nowhere near 50 years. It's more like 20 or 25.*

fore had worked for a company that moved out of downtown Cincinnati and then found its new location not all it was cracked up to be. In the intervening years, too, land prices and property taxes had risen sharply. A common price for improved, industrially zoned land in the suburbs of Cincinnati is $20,000 per acre.

Faced with two poor alternatives, Gieringer began to consider a third: buying an empty factory building within the city. Next door to Cincinnati Time Recorder was an abandoned beer bottling plant, built in 1949 and abandoned in 1953. The company investigated other possibilities, but two developments, as well as the building's proximity, induced it to purchase the brewery: The city fathers decided to reduce the tax assessment on what they considered a 60,000-square-foot white elephant, and the insurers of the building offered to finance the purchase at attractive rates. This was the clincher, since Gieringer anticipated banker apathy to financing the purchase and modernization of an old plant.

Cincinnati Time Recorder paid only $4.75 a square foot for the sturdy building, including the land. Even after a complete rewiring, the modernized plant came to substantially less than the $10 per square foot it would have cost to build new.

continued on page 59

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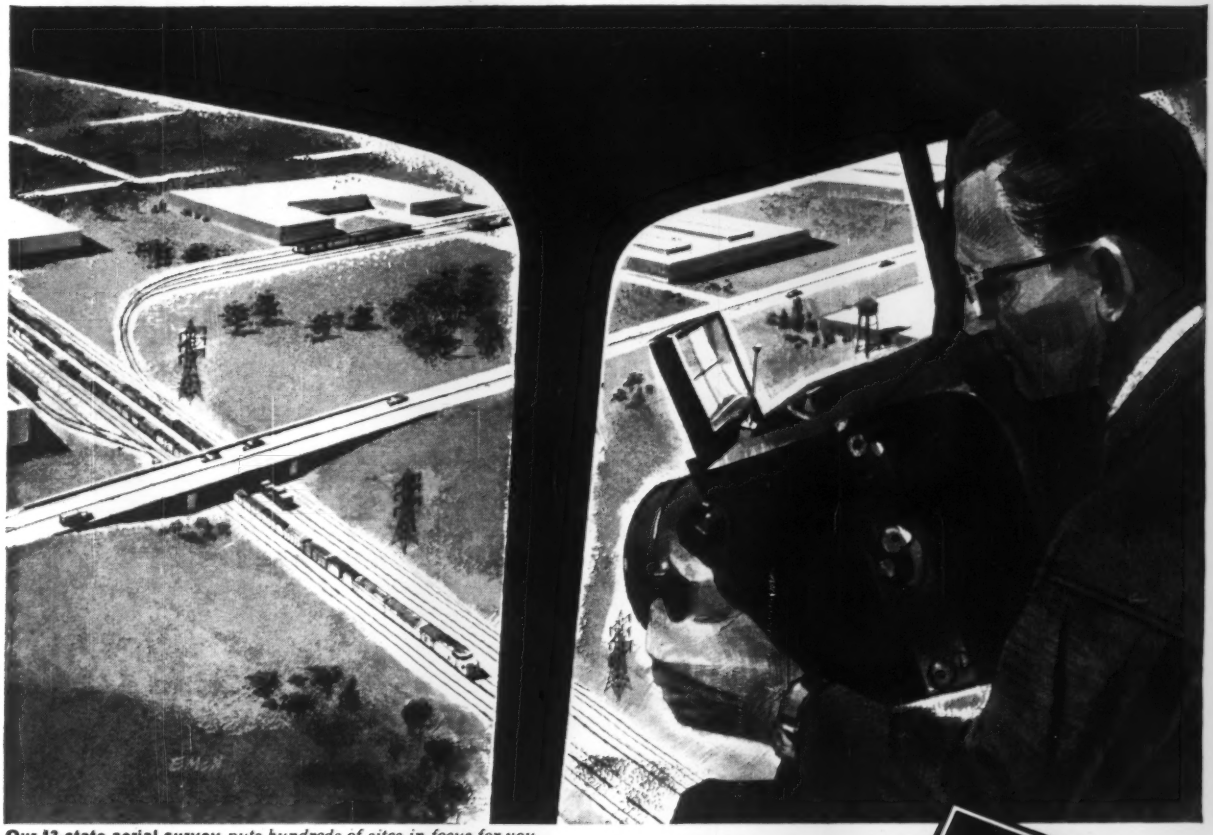

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At our plant-site idea-center, you get a sharp, clear view of the choicest property in 13 states.* *Plus* the precise data you need. All because Milwaukee Road Creative Crews have for years been gathering files on a great many sites and tracts along our 10,500-mile system. Some sites are our own. Others are offered by communities and land-developers. But with *every* site we promote, you will get these *Big 10 Advantages:* 1) Zoning arranged for—industries *welcome*. 2) Utilities ready for hook-up. 3) Rail availability. 4) Highway access. 5) Favorable topography. 6) Adequate water resources. 7) Drainage provided for. 8) Civil engineering service (for quick estimates, trackage, etc.). 9) Desirable population centers nearby. 10) Widest *variety* of choice property to consider.

Our Industrial and Real Estate Development Department recently set up a 150-acre district particularly well-suited to forest product and food product distribution at Franklin Park, a Chicago suburb. This is an example of the unique services provided by this one department which is authorized to purchase, sell, lease, develop and improve sites or tracts.

Write, visit, or call our idea-center to save miles of travel and hours of time. Write to: Mr. S. J. Cooley, Director, Industrial and Real Estate Development, The Milwaukee Road, 286 Union Station Bldg., Chicago 6, Illinois. Phone: CEntral 6-7600.

*Indiana, Illinois, Wisconsin, Michigan, Minnesota, Iowa, Missouri, Nebraska South Dakota, North Dakota, Montana, Idaho and Washington.

The odds are in your Greater Grand Rapids!

A vigorous community, immersed in progress, with an outstanding record of stability and moderation in work force attitudes and tax policies.

If you're thinking about a new plant, branch or warehouse in a strategic mid-continent location, take another look at Greater Grand Rapids. You'll find a city thriving in the heart of a great industrial state — a city rich in natural resources, with an extensive, experienced work force, conditioned to industrial activity — a city that offers new opportunities for progress and profit. From any viewpoint, in Grand Rapids the odds are in your favor for the highest return on your relocation investment.

GREATER GRAND RAPIDS CHAMBER OF COMMERCE

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WHERE YOUR RELOCATION INVESTMENT WILL PAY YOU HIGHEST DIVIDENDS!

Look at Grand Rapids – you'll like what you see!

In weighing the relative advantages among industrial communities you'll want to consider *all* factors. Check these critical requirements for a profitable move and *then* compare. From any viewpoint — sites, transportation, labor, financial aid, growth, living conditions — Greater Grand Rapids wins out by a substantial margin.

AVAILABLE SITES

More than 1,000 acres of excellent, industrial sites, well situated for easy access to modern expressways and adjacent to rail services.

WAREHOUSING

Extensive public and private warehouse facilities; Greater Grand Rapids is the wholesaling center for a marketing area of 1,600,000 population.

UTILITIES

Abundant power, water and fuel supplies (including plentiful natural gas) are available; costs are favorable.

DIVERSIFICATION

Ranging from heavy metal manufacturing, through light and technical metal work to high grade wood craftsmanship; also food and paper.

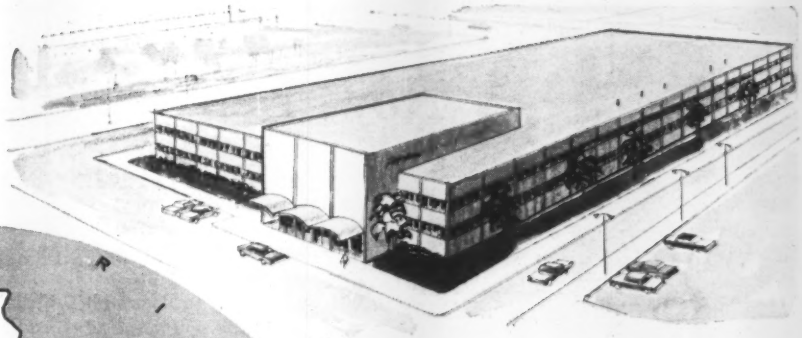
TRANSPORTATION

Three commercial airlines, four major railroads and 26 major truck terminals; close to deep water shipping via St. Lawrence Seaway.

WORK FORCE

Skilled, unskilled and technical manpower in good supply and of better than usual caliber.

favor in



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At the hub of America's industrial heartland!

Don't plan a move until you've read these! These two booklets detail the many advantages that Greater Grand Rapids offers industry. Your specific inquiries will be answered fully and promptly. Address William J. Farrell, Industrial Commissioner.

ATTITUDES

Characteristic steadiness of Grand Rapids people is reflected in a stable and highly productive work force.

COOPERATION

Greater Grand Rapids welcomes new industry and new faces in all civic, economic, spiritual, recreational and cultural activities.

LABOR COSTS

Generally fair attitudes prevail accounting for moderate labor costs and a low rate of work stoppages.

LIVING

Good housing, churches, schools, shopping centers and parks. Three degree-granting colleges, two university extensions and a junior college.

TAX PHILOSOPHY

Efficient city-manager form of government with a tax philosophy that fosters industrial growth and provides all necessary services.

FINANCIAL AID

There are no financial problems which cannot be handled locally. Banks are extremely enterprising.

PROGRESSIVENESS

Greater Grand Rapids is planning for industrial growth. Dynamic new projects include an 1,800 acre airport for the jet age, a modern wholesale market, redevelopment of the central business district and construction of a new civic center. The area's sound economy, fostered by alert, progressive city and county government, assures a healthy future growth.

GRAND RAPIDS
A GOOD PLACE TO LIVE AND TO WORK

Now! Financing arrangements for companies that must expand!

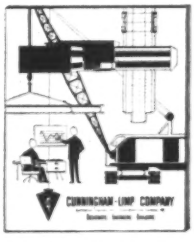
C/L helps business and industry secure necessary funds privately, confidentially, and fast!

If your competitive position says expand now . . . but your cash position says wait . . . here's important news: Cunningham-Limp can secure financing for plant expansion and new building—from $50,000 to $50,000,000—without public offering, without tying up working capital, and at competitive rates!

Here's how it works: Through our basic approach of an Engineering-Economic Analysis, Cunningham-Limp determines the facilities best suited to your expansion needs, and tailors the type and form of financing requirements to your capital structure. We then provide you with a complete proposal at a guaranteed price, and will obtain the necessary funds, either on a long-term basis or a sale-leaseback transaction, at attractive and economical rates.

With financing arranged, C/L will move your building along to completion *fast*. Under our Single Responsibility concept for Designing, Engineering and Building, complications are avoided and construction is started immediately at a savings to you! Also, your new plant can begin operating at least 20% sooner.

For complete details on how C L can help your company build or expand, send for our 88-page brochure describing our services in detail. Your inquiry will be treated confidentially, and there is no obligation involved. Executives are invited to obtain it by writing on their letterhead or business card to: Cunningham-Limp Company, 3087T West Grand Boulevard, Detroit 2, Michigan.



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Whenever reference is made to designing, engineering or architecture, the work will be done by Cunningham Engineers, Inc., or by personnel qualified under all applicable laws.

continued from page 54

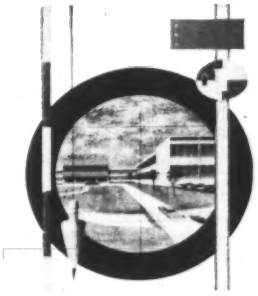
Because of the added height and column spacing of the floors in the one-time bottling plant, the company has been able to buy sorely needed machinery that cuts production costs. And there is enough unused space available to take care of at least three years' projected growth.

When more space is needed in the future, Gieringer expects to be able to buy other abandoned buildings in the neighborhood, either for occupancy or to be torn down for parking space. Because of good public transportation, however, only a small fraction of the employees have to drive to work. The ratio of parking space to plant area is only 0.25, in contrast to 1.2 for plants in most suburban locations and 1.6 in California.

Being in the center of things has more than one advantage, Gieringer notes. Many of his company's suppliers are within a mile or two, which means delivery in hours instead of days in an emergency. And as more cities systematically rehabilitate their dilapidated downtown areas, there'll be convenient housing available for industrial employees—and tax concessions for companies that are willing to salvage abandoned plants.

Modernization and expansion programs lack the glamour and promotional value of new construction. They also force companies to accommodate themselves to the mistakes of the past.

But profit margins in manufacturing are not based primarily on public relations and self-satisfaction. As long as the dollar sign is the ultimate touchstone, modernization and expansion will remain the bread-and-butter methods of upgrading.



II PLANT LOCATION

Once the decision to build has been made comes the real problem: Finding the right site gets harder each year—and few companies can afford the price of a mistake.

Second-Guessing Comes High

HUNDREDS of business men start looking for plant sites each year—and get caught in the middle of a gigantic tug-of-war. Pulling on one side are all the undeveloped communities that want industry. On the other: all the "distressed" towns and cities seeking new industry to replace business that has moved away.

Picking the site for a new plant today is a far more difficult job all around than it was ten years ago. Over the past decade, a massive industrial building boom (average: $5 billion worth of new plant a year) has gobbled up choice sites at a record rate. Few good areas, even in the South and West, have escaped the industrial invasion. Prime plant sites are, comparatively speaking, few and far between and difficult to find.

Adding to the selection problem, the lures dangled by local community development groups have multiplied in number and variety. Today there are roughly 10,000 organizations, big and small, competing in the free-for-all to win new industry for their respective communities. Few business men have the time to absorb, much

ROBERTSON: *"Obsolete building codes frustrate the efforts development groups make to attract industry."*

STOREY: *"For effective leadership, development commissions must be removed from political influence."*

KLEMME: *"Many communities that want plants aren't ready to accept the responsibilities that go with them."*

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The sign on your building front is one of your most important business assets. It tells people many things about your company, your products, your services. It is your *business card* to potential customers!

No matter what you make or sell, Plasticles Sign Letters provide distinctive, personalized identification that will be looked up to and remembered. They beautify your building . . . add prestige to your business . . . give you the *successful* business look.

Made of durable acrylic plastic for lasting beauty, Plasticles Sign Letters will not fade, chip or crack. Available in a wide variety of styles, colors and sizes.

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Find out how you can identify your business with Plasticles Sign Letters. Get complete information on "what to look for when buying sign letters."

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less to analyze, the welter of promotional data which deluges them.

Second-guessing comes high when a million-dollar investment is involved. The brochures, not surprisingly, seldom mention the common perils: insufficient water, inadequate power, a shortage of skilled labor, poor community services, ground that can't support a building without expensive piling.

It's still too early to tell how much bait the Federal Government will dangle to interest companies in regions they've been shunning. The Kennedy Administration is pushing legislation, based on the Douglas Committee report, for multi-faceted aid to distressed areas. Encouraging industry to build and expand in pockets of chronic unemployment will be a major purpose of the bill. If it passes, the Government will offer technical assistance to blighted areas to help them analyze the advantages they have to offer.

Under Government subsidy, workers will be retrained in the skills they need, and the distressed communities will get loans at attractive terms to build industrial plants, as well as supporting facilities, for lease. Those that are already heavily mortgaged to back industrial development will be offered secondary mortgages to

ANDERSON: *"Employee parking is a nasty problem that complicates site location. We seriously considered chartering buses to pick up the employees. We even thought of giving them coffee and doughnuts and TV on the way to work. It would be cheaper than providing lots."*

make new risk capital available.

Even if the bill passes Congress, there is ample evidence that it will not have much effect on industry's building plans. For one thing, the aid is designed to help create new enterprises, yet most of the thousand-plus new plants built annually are constructed as part of existing industrial complexes. Few replace older plants abandoned elsewhere. Fewer still are put up by brand new companies or to make entirely new products for established companies—the two categories of industry that will benefit from the Administration's bill.

A Syracuse University study of distressed Amsterdam, N.Y., a one-time carpet-making center of 28,772, concluded that despite "heroic" efforts, the city's energetic development campaign was far from an unqualified success. The researchers, working on an official state report, gave only lukewarm endorsement to such drives. Recommended instead were funds to retrain and move unemployed workers, a solution that many industrialists also consider more practical.

If the new Department of Urban Affairs that is being talked up in Washington becomes reality, the cities will probably get Federal aid in their efforts to retain industry. There are signs that the grass outside the city limits no longer looks so green to a lot of companies. As a result of industry's steady migration to the suburbs, land prices there have risen astronomically. Parking thousands of employees' cars is a problem the company automatically acquires along with its choice suburban site (see box on page 63). To Libby, McNeil and Libby, the fact that the majority of its large unskilled workforce depends on public transportation tipped the scales in favor of staying in Chicago, though land for its new plant would have been cheaper if they'd crossed the city line.

Five years ago, when Loral Electronics Corp. had to give up its leased property in the Bronx, N.Y., the company was wooed by property tax moratoriums in nearby Connecticut, the absence of business and personal income taxes in New Jersey. It ended up building a new plant on an eight-acre golf driving range right in the Bronx because half of its engineering staff refused to leave the city. Says Vice President Sheldon Simon: "People are the heart of our business. You don't mind paying a little bit more in

On the New York Central Railroad, 130 choice acres bisected by Cincinnati's great new Circle Freeway

Why **these new sites** are "made to order" for your new plant in the midwest

You start, of course, with the advantages of choosing any good site in the Cincinnati Industrial Area. For you find yourself closer to markets, here . . . closer to raw materials. A plant here is actually at the center of a 500-mile circle that takes in over half the nation's business, over half its manufacturing payrolls.

But what you're looking at above are specific sites in this area with even more specific advantages for new plants of almost every type—probably including the one you have in mind. Take a close look.

- Total number of acres available: 130. Individual sites of 11 to 70 acres.
- Located 15 miles north of Cincinnati Business District and astride Cincinnati's new Circle Freeway with easy access to excellent highway facilities (see photo above).
- These sites are zoned "Heavy Industrial" . . . are situated in an area that has a diversity of industrial plants.
- Mainline rail service from New York Central available with connections to 7 other major railroads in Greater Cincinnati Area.
- Property within Cincinnati switching limits and commercial zone.
- All utilities available to the property line: electricity, gas, water, sewer and telephone.
- Close to magnificent new Tri-County Shopping Center and new suburban development.

For complete and confidential *information about the above plant sites, write Mr. James Wuenker, Manager Industrial Development Department, The Cincinnati Gas & Electric Company, Cincinnati, Ohio.*

The Cincinnati Gas & Electric Company

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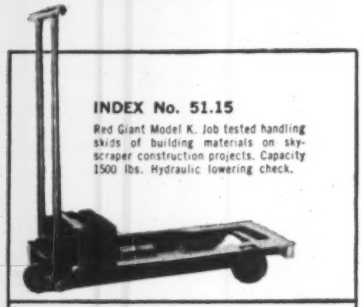
Serving homes and industry in the Greater Cincinnati Area with an adequate and dependable supply of gas and electricity.

RED GIANT: *Rugged, Dependable— Year after Year*

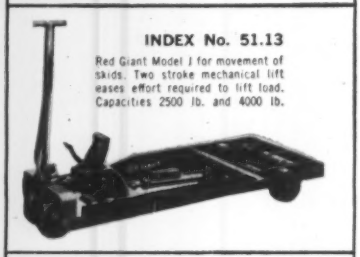
Red Giant Hand Lift Trucks are available in eight basic models and with a range of sizes and capacities in each model.

Tremendous strength without excessive weight, all steel construction, electric arc welded members, long bearing surfaces, and most of all, the simple and correct design, enable these Red Giant Lift Trucks to stand up under constant use—even abuse—year after year.

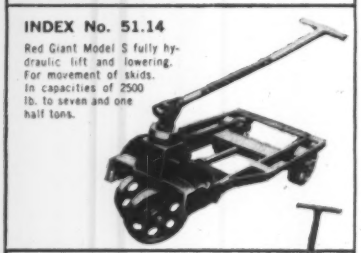
Smooth operation, a non-kicking, spring-balanced handle for complete safety—these are some of the features which make RED GIANT the most practical truck of its kind.



INDEX No. 51.15
Red Giant Model K. Job tested handling skids of building materials on sky-scraper construction projects. Capacity 1500 lbs. Hydraulic lowering check.



INDEX No. 51.13
Red Giant Model J for movement of skids. Two stroke mechanical lift eases effort required to lift load. Capacities 2500 lb. and 4000 lb.



INDEX No. 51.14
Red Giant Model S fully hydraulic lift and lowering. For movement of skids. In capacities of 2500 lb. to seven and one half tons.

INDEX No. 51.21
Red Giant Model JKT for handling single faced pallets. Mechanical lift and hydraulic lowering check. Capacities 2500 lb. and 4000 lb.

INDEX No. 51.22
Red Giant hand lift truck for two or three ton loads on two faced pallets. Fully hydraulic lift and lowering. Capacities 4000 lb. and 6000 lb.
Model SVP

INDEX No. 51.12
Red Giant Model H hand lift truck for movement of skids. Single stroke mechanical lift with hydraulic lowering check. 2500 lb. and 4000 lb. capacities.

INDEX No. 51.22
Red Giant H2½VP fully hydraulic lift and lowering for two faced pallets. Separate pump handle for lifting in limited space. Capacity 2500 lbs.

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Designers and Manufacturers of Portable Elevators, Power and Hand Lift Trucks, Hydraulic and Traction Elevators, Carboy and Barrel Dumpers, Portable Cranes, Positioners, Storage Racks, Turntables and Other Material Handling Equipment.

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taxes, a little bit more in construction costs, because if you want to progress you've got to have the right people."

This, says A. K. Ferguson of Kidde Constructors, is one example of the equation that each site-seeking company has to figure out for itself. In one industry, the human factors will determine where to move. In another, management's decision hinges on the water resources available. "Analyze the proportion of power costs in light manufacture," says Ferguson. 'It's negligible. But make the same analysis for the manufacture of aluminum and it means everything. Somebody who is looking for a lower power rate *per se* may be deluding himself."

Few of the boosters who tout their communities' industrial potential are of much help in supplying such detailed data, some executives argue. The "underdeveloped" towns, they say, are long on adjectives, short on specifics. In the words of Peter De Jongh, chief engineer for the George A. Fuller Company: "They need more engineers—and fewer press agents."

One failing of small town developments groups is that they don't know what industry wants. With a prospect at hand for an industrial site, Edward B. Storey, director of the Iowa Development Commission, asked one town for the soil-bearing characteristics of a tract it had zoned for industry. Came the answer: "65 bushels to the acre."

As a result of sad experience, more

continued on page 65

FERGUSON: *"I have seen $65,000 worth of study go into a plant location and be kicked right out of the window by a board chairman who didn't want to move."*

The Parking Problem

Two trends that show no sign of slackening are now interacting to make plant location a greater headache than ever:

- More and more employees drive their own cars to work.
- Prices and taxes on suburban land are steadily rising.

Companies are running into all sorts of problems with employee parking. When a plant runs more than one shift, the trouble is compounded. Then, notes J. F. Ruth, Western Electric plant engineering superintendent, you have cars coming and going at once.

Even when a company provides enough parking space, the later arrivals grumble because they have to walk so far to punch in. At one big manufacturing plant, an enterprising man across the street from the main entrance rents space to employees who would rather pay than use the outer fringes of the company lot.

To solve the parking problem, companies have tried all sorts of solutions:

- It is now common to wrap parking lots around the building, though this means less space for convenient outside storage of materials.
- Many corporations have tried to induce bus companies to offer more service, then find their own employees uninterested.
- Some companies are considering a car lot on the roof of the plant, but according to Ferguson of Kidde Constructors, this doesn't become economical until land prices hit $60,000 an acre. Roof parking adds about $2 to $2.50 per square foot to the cost of a building, and many companies use the roof for fans, air conditioning shacks, and equipment.
- Where parking lots are very large, some companies have built covered walks to the far ends of the lots. Some have been installing escalators to move employees from the parking lot to upper plant levels and back again.

The ultimate solution to the parking problem may take many forms. One could be a trend back to multi-story plants. Some companies might require employees to drive small cars to work. The alternative isn't very pleasant: employees may start demanding portal-to-portal pay from the moment they enter the parking lot.

are you missing

FINANCE
Those Fat Profit Margins Abroad
● U.S. companies find their overseas operations providing an ever-growing proportion of their earnings.
● Oil industry profits, the biggest single factor, have been slipping sharply since 1957.
● But manufacturing companies, making up a quarter of the total, have been climbing for three years.
But Canada and European countries benefited from higher manufacturing receipts.
• Big Foreign Earners—More impressive than those over-all figures are foreign sales, earnings, and investment return of individual companies.
H. J. Heinz Co. earned more than two-thirds of its total income overseas last year—or $8-million out of $12-million. Chas. Pfizer & Co. and Scherling Drug earn more than 40% of their

FROM BUSINESS WEEK

Locate your overseas plant in IRELAND!

Today you can compete *more profitably* in rich, fast growing markets abroad when you locate your overseas plant in Ireland.

Incentives offered by the Irish Government make it remarkably easy for you to develop "those fat profit margins abroad!" You receive *ten years exemption* from income tax on export profits plus a further five years reduced taxation. Outright, non-repayable *cash grants* help you build your factory, equip it with machinery, and train your workers.

Other advantages include preferential treatment for your products in many countries, reasonable wage scales, ample power, and a plentiful supply of *interested*, intelligent labor.

Why not write today for details. The Industrial Development Authority's office in New York is ready to assist you with information about your specific industry.

If you can use air freight, Shannon Free Airport offers ready-to-occupy factories for renting, as well as cash grants, and tax exemption until 1983.

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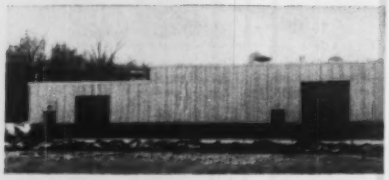
Telephone: OXford 7-0848

A Good-Business first impression starts with DAVEY

Attractive landscaping around commercial sites never fails to portray the progressive character of the management who put it there. The best possible first—and lasting—impression your company can make—on your community, employees, civic leaders, investors—is with expert landscaping by the Davey Commercial Site Planting Department.

Davey's Commercial service includes tree planting, shrubbery, ground cover and lawn. It can also include planning and provision for annual care. As much or as little of the complete service as you wish. Pictured below is an example of Davey's commercial service.

This structure was located in a high value residential area. Community acceptance was a problem.



After Davey planting for the building, the neighbors actually wrote complimentary letters on the beauty of the screening.

Davey trained experts, using the best equipment, can make *your* outdoor reception room work for you—with superb landscaping, and maintenance if you wish to protect a good investment. If you are in charge of landscaping or on the building committee, write on letterhead for detailed information or literature.

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Commercial Site Planting Dept.

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THE OLDEST AND LARGEST TREE SAVING SERVICE IN THE WORLD

DAVEY TREE EXPERT CO.

How GE Picked a Plant Site

General Electric offers a good example of the sophisticated, close-to-scientific methods big companies use to pick new plant sites. To find a spot for a "Lexan" plastic resin plant, company executives spent one year and tens of thousands of dollars inspecting over 40 sites. Final choice: Mount Vernon, down in the southernmost tip of Indiana.

GE officials concentrated first on cost factors affected by location. Because they had to dispose of lots of waste, the plant had to be near a body of water. They searched through the Ohio River and Mississippi valleys and along the Gulf Coast. Interestingly enough, they found very few good sites left on the Ohio River above flood stage, a fact that will lessen this area's appeal in the coming years for companies that must be near water. (The plant GE finally built is on a site 15 feet above the level of the record 1937 flood.)

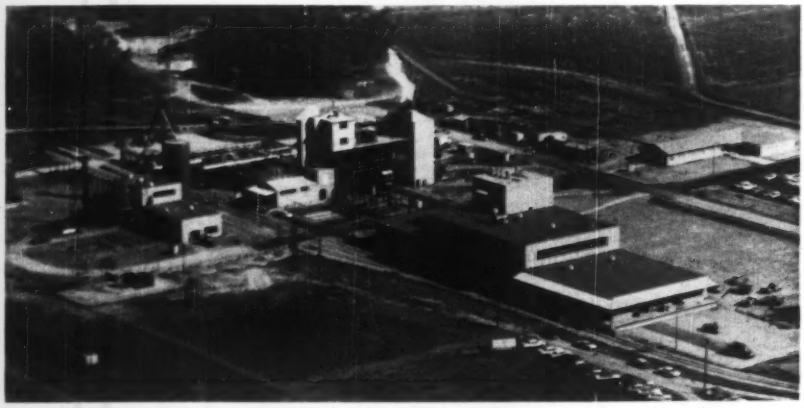
After months of study, the choice was narrowed to eight locations in such wide-apart areas as Pittsburgh, St. Louis, and Cleveland. Really intense cost studies narrowed the choice to three locations.

At this point, the executives began to consider such factors as:

- The steady shift of the plastics "center of gravity" in the U.S. to the South and West.
- Transportation for personnel—a nearby airport capable of handling large planes and with good connections with the rest of the country was essential.
- Local technical climate—since chemical plants require small workforces, a good college close by can fill any gaps on the staff.
- Absence of hazardous neighbors—refineries, gasoline tanks, etc.
- Distance from competitors—GE doesn't want any of its technical or marketing secrets innocently passed to competitors over a bridge game.
- Distance from other GE plants—the company is anxious not to dominate any area, finally picked a site over 150 miles away by road from the closest GE facility.
- Conservative temper of the community—understandable in view of GE's labor difficulties in Pittsfield, Mass., headquarters of its Chemical Materials Department.

On the basis of all these factors, GE first selected a location other than Mount Vernon. But just as it was about to purchase the site, the top brass decided that it wanted a place to which it could eventually move department headquarters from Pittsfield. With this new consideration in mind, Mount Vernon was chosen instead.

The actual 162-acre site was purchased from the Chicago and Illinois Railroad. Since only a fraction of the land is used at present, a large section of it has been rented to a neighboring farmer, who raises corn on the land as he did in the past.



CONTINUOUS FLOW: *This is GE's new Lexan plant in Mount Vernon, Ind. When needed, a "mirror-image" of the multi-story resin-forming section in the center will be constructed between this facility and the heating plant (round tower at left). The raw resin is blown through pipes to the large building at lower right, where it is tinted, pelletized, bagged, and stored for shipment.*

continued from page 62

than one business man now avoids the development group when he looks over a town, goes instead to the local power company or the nearest railroad for information.

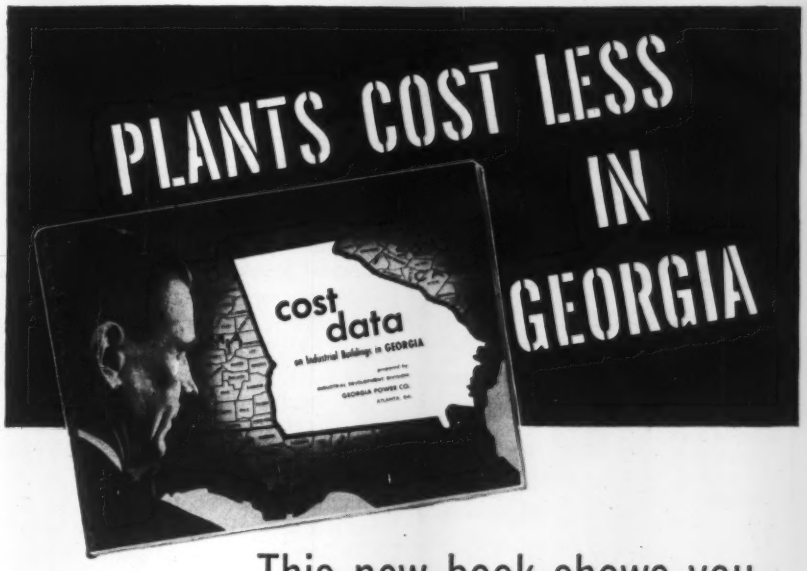
Poorly organized to attract industry, a lot of these communities are actually bad risks, some industrialists charge. Small towns want business to take up some of the tax burden and provide new jobs, but they aren't ready to accept the responsibility that goes along with new manufacturing. Many of them have not changed their obsolete building codes to enable companies to use the latest lower-cost building techniques (see "Bricks & Mortar Come of Age," page 90). Others don't realize that they must provide community services such as sewerage, lighting, schools, and good access roads.

In contrast to the towns with little to offer in the way of municipal lures, some towns say they will build "free" plants and then not tax them. That's when business men get wary, note the roundtable participants. It's easy to be blinded by the concessions and end up with a basically unsound plant site in a town that is far from markets and raw materials.

The communities that rely on tax bait are wasting their time, say the men at the roundtable, corroborating the recent survey findings by Thomas P. Bergin and William F. Eagen of the University of Notre Dame. According to the professors, companies are rarely influenced by such concessions.

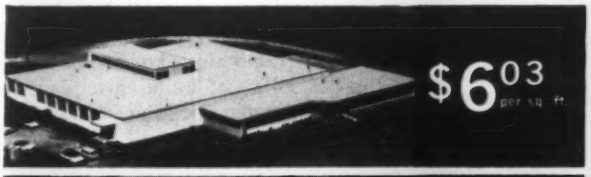
The type of company that is likely to be won by tax concessions is the marginal one that is apt to move on when the moratorium ends, contends Vice-President Randall T. Klemme of Northern Natural Gas. In this connection, say roundtable members, it will be interesting to see if Puerto Rico has trouble holding on to companies that have opened plants there under the 10-year tax holiday.

When an industry-hungry town goes in for tax concessions to get new business, it can mean trouble for the industries already there. Companies that settled in a municipality before the benefits were available are, in effect, partially subsidizing new industry through higher property taxes. Companies that take advantage of the concessions face the prospect of returning some of the subsidy in the form of higher property taxes when

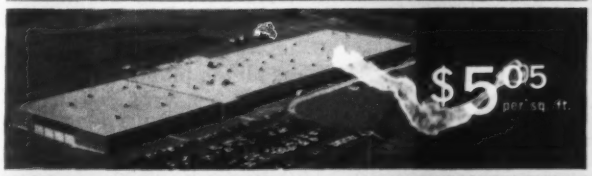


This new book shows you how much less

The latest edition of our building-cost data book contains photographs and complete specifications of 24 recently constructed plants, together with cost information. You will find it interesting. It's yours for the asking.



26,758 sq. ft. Office area of 5,308 sq. ft. has paneled walls; terrazzo and carpeted floors; air conditioning. Plant 100% sprinklered. Locally financed.



220,000 sq. ft. Steel and masonry construction. Ceiling height 28'. Office air conditioned. Plant 100% sprinklered.

42,128 sq. ft. Steel and masonry construction. Pre-cast slab roof. Ceiling height 11'. Office area air conditioned. Plant 100% sprinklered.

In Georgia, heartland of the rich southeastern market, new factories and warehouses of national concerns are being built at an ever-increasing rate. And they are being built at costs well below those prevailing in other sections, as you can see from these typical examples.

E. A. YATES, Jr., Vice President

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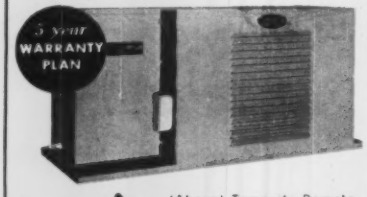

(Above) Temprite Remote Type Water Coolers in four models from 6 to 24 G.P.H.

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the concession ends. Then it will be their turn to subsidize newer arrivals —one of whom may be a competitor.

The intense competition among communities for new plants has resulted in unethical practices, report roundtable participants. M. W. Johnson of the Cincinnati Gas and Electric Company charges that certain "consultants" prepare costly "master industrial development plans" for communities, only to turn around and recommend the same communities to their industrial clients, who have to pay a fat fee for the "location study." One engineering firm, according to W. J. Harahan, Jr., of the Chesapeake & Ohio Railroad, made a location study for a company and got the community it recommended to pay for it a second time under the title of a master development plan.

The consultant is not always the prime mover in these schemes, says Ferguson. His company turned down one community development commission which approached the Kidde engineering department, fee in hand, asking for a development plan—and a promise from Kidde to urge companies to locate in the town. An engineering or consulting firm, says Ferguson, cannot serve both masters in locating plants. His advice, seconded by other roundtable experts: To avoid the possibility of building a plant in an uneconomic location, make sure that any outside agency hired for a location study isn't also working for the community recommended.

How successful are business men in avoiding all the pitfalls involved in plant location? Not very, say the experts. According to John McCabe (see "When You Plan Your New Plant," DUN'S REVIEW, October 1960, page 44), a Cresap, McCormick & Paget survey showed that too high a proportion of the largest U.S. companies do slipshod jobs of site selection. These are corporations that can put a big staff full-time on the job. Medium-size and small manufacturers rely on executives with heavy daily operating responsibilities to double in brass as long-range planners. John D. DeMoll of Ballinger reports that many small manufacturers come to him asking him to design a plant "of about 125,000 square feet." When he asks about the site, they reply they haven't even picked out a city yet.

Many of the roundtable participants also indict business men who

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information about

Quad Cities

for industrial site seekers

The Quad City area—a community of ten towns with a nucleus of Davenport, Iowa, and Rock Island, Moline, and East Moline, Illinois—offers attractive opportunities for industrial development. An industrial community in the heart of the nation's best agricultural land, the Quad City area is astride the Mississippi River midway between Minneapolis and St. Louis, and midway between Chicago and Des Moines. Over a quarter of a million people live here—on 899 square miles of land.

Choice industrial sites are available in the Quad City area adjacent to the Rock Island railroad. If the following information interests you, get in touch with us for more specific details. We'll work with you in strictest confidence.

LABOR: Total civilian labor force of 116,375 in the Quad City area; 2800 high school graduates annually with 1200 going on to college; average education 10.1 years.

POWER: Capability of electric plants 380,000 KW; peak day natural gas 150,000,000 cu. ft. with unlimited supply for increased use; 584,000 bbl/yr. oil pipeline capacity; soft coal deposits of 60 million tons within 70 miles.

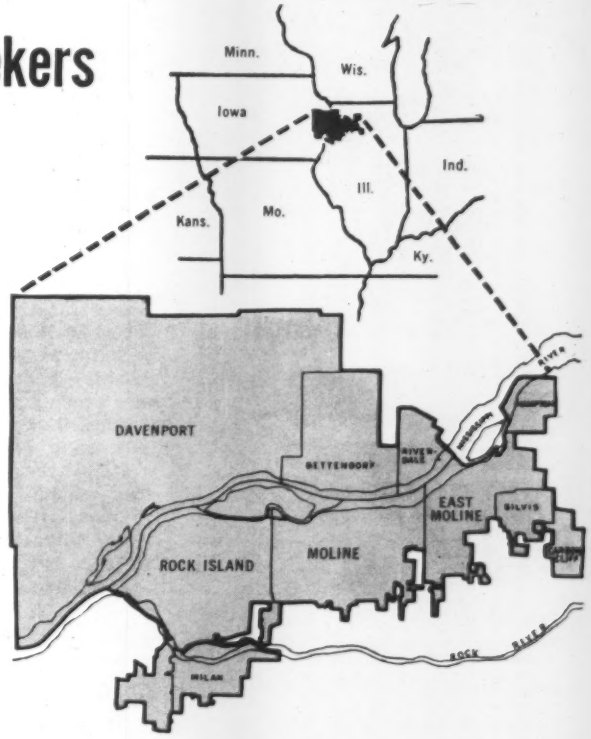
TRANSPORTATION: The Rock Island and 3 other railroads; 2 airlines; 69 interstate common carrier truck lines; 5 bus lines; 50 barge companies on this section of the Mississippi River.

HOUSING: 10,603 new dwelling units in ten years (1951-60); urban renewal project under development.

THE COMMUNITY: 13 high schools with 7 less than 4 years old; 5 colleges; 61 commercial and fine arts private schools; 101 parks and playgrounds with 2600 acres; 4 forest preserves with 1900 acres; 7 general hospitals with 286 physicians.

COMMERCIAL SERVICES: 383 industrial firms; 12 contractors for industrial plant construction.

CLIMATE: 28 days annually with 90° or higher; 11 days with 0° or lower; annual precipitation 33.1".



INFORMATIVE BROCHURE describes 12 key markets in Rock Island Country. This fact-packed "Rock Island Country" booklet, as well as further details on industrial sites in the Quad City area, may be obtained by writing on your company letterhead to P. J. Schmidt, Manager, Industrial Development, Department 167, Rock Island Lines, La Salle Station, Chicago 5. The brochure and supplementary information will be mailed in a plain envelope marked "Confidential."

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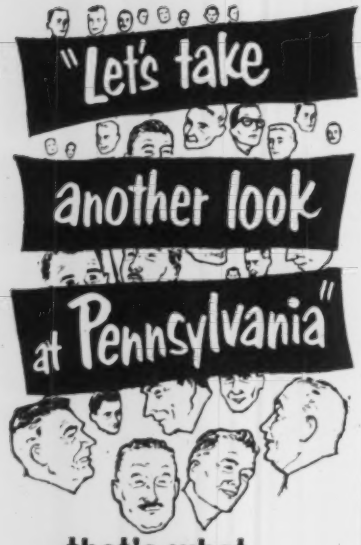

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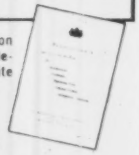

Pennsylvania Department of Commerce

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Phone: CEdar 4-2912

scrounge around for a bargain in outside professional aid when they're looking for someone to solve plant planning and location problems. Any savings gained through cheap engineering, they observe, will most likely be lost many times over in poorly planned buildings and poorly chosen sites.

The best of professional advice is not always heeded. One roundtable heard the tale of a company which paid $65,000 for a location study. Its

continued on page 73

When a Plant Moves Out of Town

What do you do with your workforce when you move a manufacturing operation a long distance and shut down the old plant?

As a rule, where executives and salaried workers are concerned the answer is easy: You encourage them to come along, though few companies urge their "deadwood" too enthusiastically. How much encouragement to give is another matter—policies vary from company to company, largely depending on local conditions. Almost all pay basic moving expenses for the executive group, but some leave it at that. Others go so far as to help the employee sell his old home and buy a new one, bearing the cost of the difference, if any. In between there is a wide range of variations, which have been thoroughly documented in two recent surveys by the National Industrial Conference Board: "Company Payment of Employees Moving Expenses" and "Employees on the Move."

Obviously, you can seldom transplant an entire blue-collar workforce. If some work is still being handled at the old location, most companies try to keep on as many hourly workers as possible. Otherwise, it's simply a matter of working out a termination policy.

A new survey by Fantus Factory Locating Service shows that close to half the companies moving to new locations today give special payments, based on length of service, to blue-collar workers who are left behind. In some instances, these cash termination benefits are for more than humanitarian reasons: To meet current orders, the company wants to hold on to the workforce after the relocation is announced. In contrast, other companies encourage employees to leave before the final closing, paying regular termination benefits.

In either case, the amount paid may be a flat sum, such as $35 for each year of service, or it may be figured from a formula based on weekly earnings times a sliding factor that goes up sharply with years of service.

Frequently there are additional benefits. One company paid the cost of company-plan life, hospital, surgical, and major medical insurance for six months or until the ex-employees found new jobs. Other companies make special efforts to help their workers find new jobs in the area. These may include:

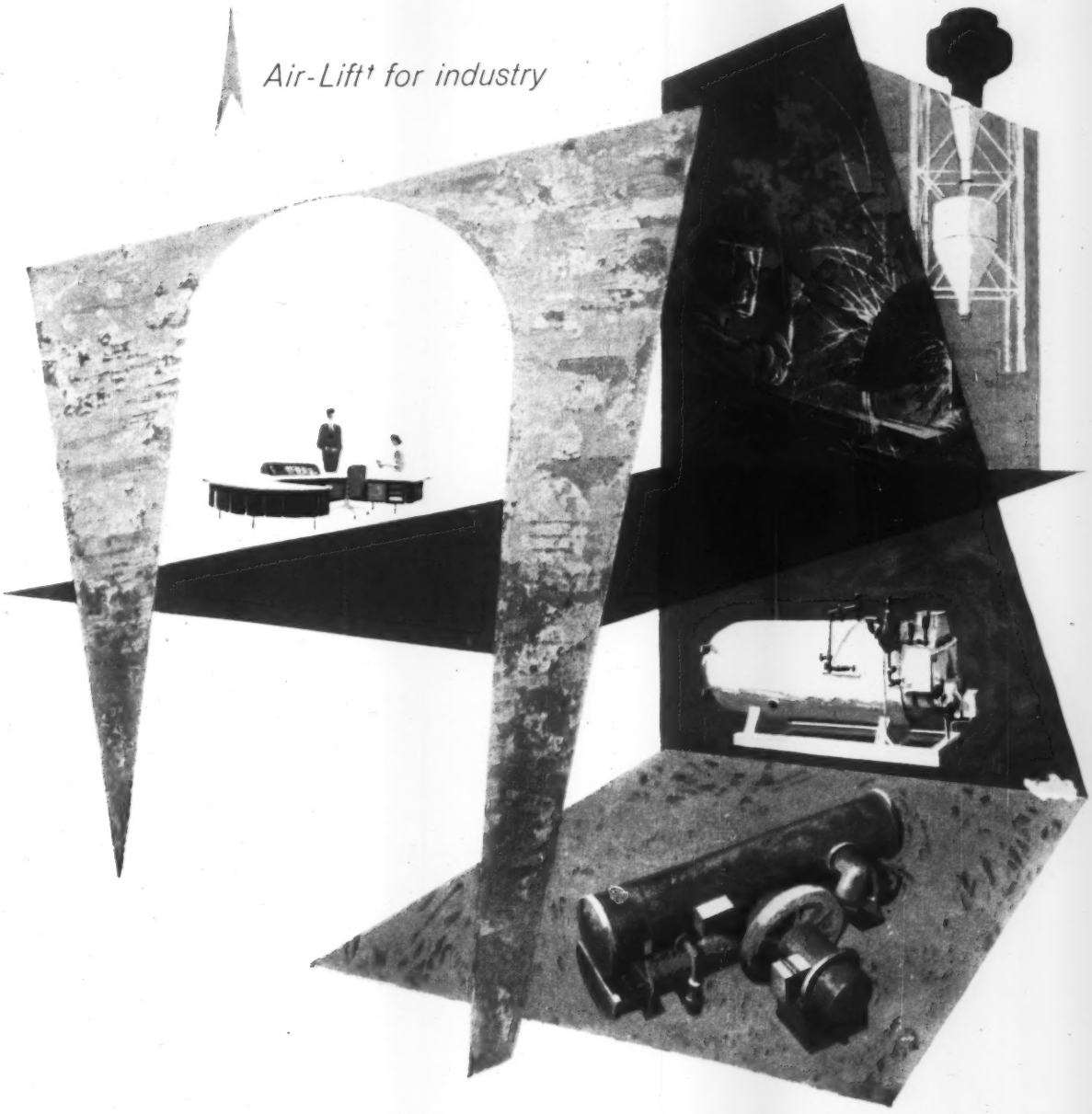
- Allowing the State Employment Security Division to set up an office in the plant to take applications, hold interviews, and make specialized tests.
- Circulating lists of available people, classified by skills, to other manufacturers in the area.
- Calling other employers on behalf of certain high-caliber employees.

Some companies, in order to make the transition as easy as possible, time their move for the season when their employment is at a low.

The whole problem is a lot simpler, of course, when there is enough labor demand in the old location to soak up the laid-off workers. In this situation, one company in five gives no termination pay at all. Most companies with generous pension and profit-sharing plans likewise feel no need to make special efforts to soften the blow—they simply give the employee whatever benefits he had accumulated up to the time of the move.

Sometimes the shoe is really on the other foot. One company that had plans to move was petitioned by the city fathers *not* to offer moving expenses to its hourly employees. Reason: it might "rob" the community of its skilled help, a major asset in recruiting new industry!

Air-Lift† for industry



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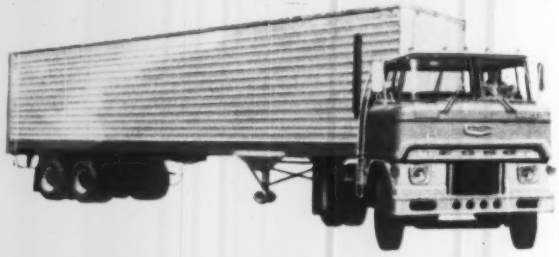


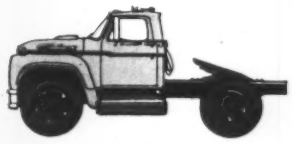
NEW DIESEL TRACTORS. Completely new "H" Series Tilts with Cummins Diesel or Ford "Big V" engines. Specifically designed for highway service: 28-in. set-forward axle, big 76,800 GCW, for top legal loads.

LOW-COST TILT CABS. They're America's most popular Tilt Cab trucks—and low price is only one reason why! New weight-saving options boost truck payloads . . . new optional sleeper tractors haul 40-foot trailers in any state.

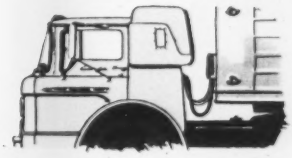
NEW WAYS TO SAVE!

Save space

For '61 Ford has removed 9 inches from conventional tractor length, moved the front axle forward for greater payload. And now there are two space-saving Tilt Cab series—both available with sleeper compartment!



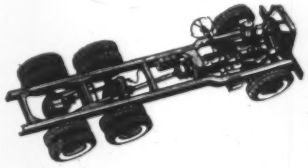
New conventional tractors—28" bumper to front axle! Set-forward axle cuts front overhang, permits up to 800 pounds more payload in "bridge formula" states!



New fiberglass sleeper cabs—add just 30 lbs. to weight; 2½" to length! New optional sleeper for all Tilt Cab series lets you haul 40-foot trailers in 50-foot-limit states!

Save weight

Extra toughness in sheet metal, frames and chassis without the penalty of extra pounds! New use of high-tensile steel and other strong, lightweight materials—plus optional aluminum wheels, fuel tanks, housings, etc.—cut over-all truck weight.

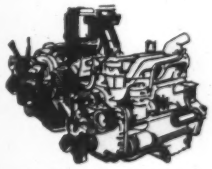


New frames of high-tensile steel—30% lighter, 100% stronger! Fatigue and corrosion-resistant, high-tensile frames are standard on Super Duty tractor models.

New low-weight tandems—968 pounds more payload! New pusher-type tandems with one driving axle! Optional aluminum beams for dual-drive tandems!

Save money

New high-strength cabs, shock-cushioned chassis and Super Duty engine give '61 Fords the stamina to keep costs low! And here's proof: Ford Super Duty V-8 engines are backed by the most liberal warranty program ever offered in the truck industry!



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Now—on Super Duty V-8's—industry's most liberal warranty! On 401-, 477- and 534-cu. in. V-8's, Ford Dealers will replace any major engine part (block, valves, pistons, etc.) found defective in normal use. Covers full cost of parts for 100,000 miles or 24 months, whichever occurs first . . . full labor cost for first year or 50,000 miles, sliding scale thereafter.

NEW HIGH-STRENGTH CONVENTIONAL. Heavier gauge steel and stress-isolating mountings more than double the life expectancy of Ford's new cab and sheet metal! High-tensile frames give tractors new strength, stability!

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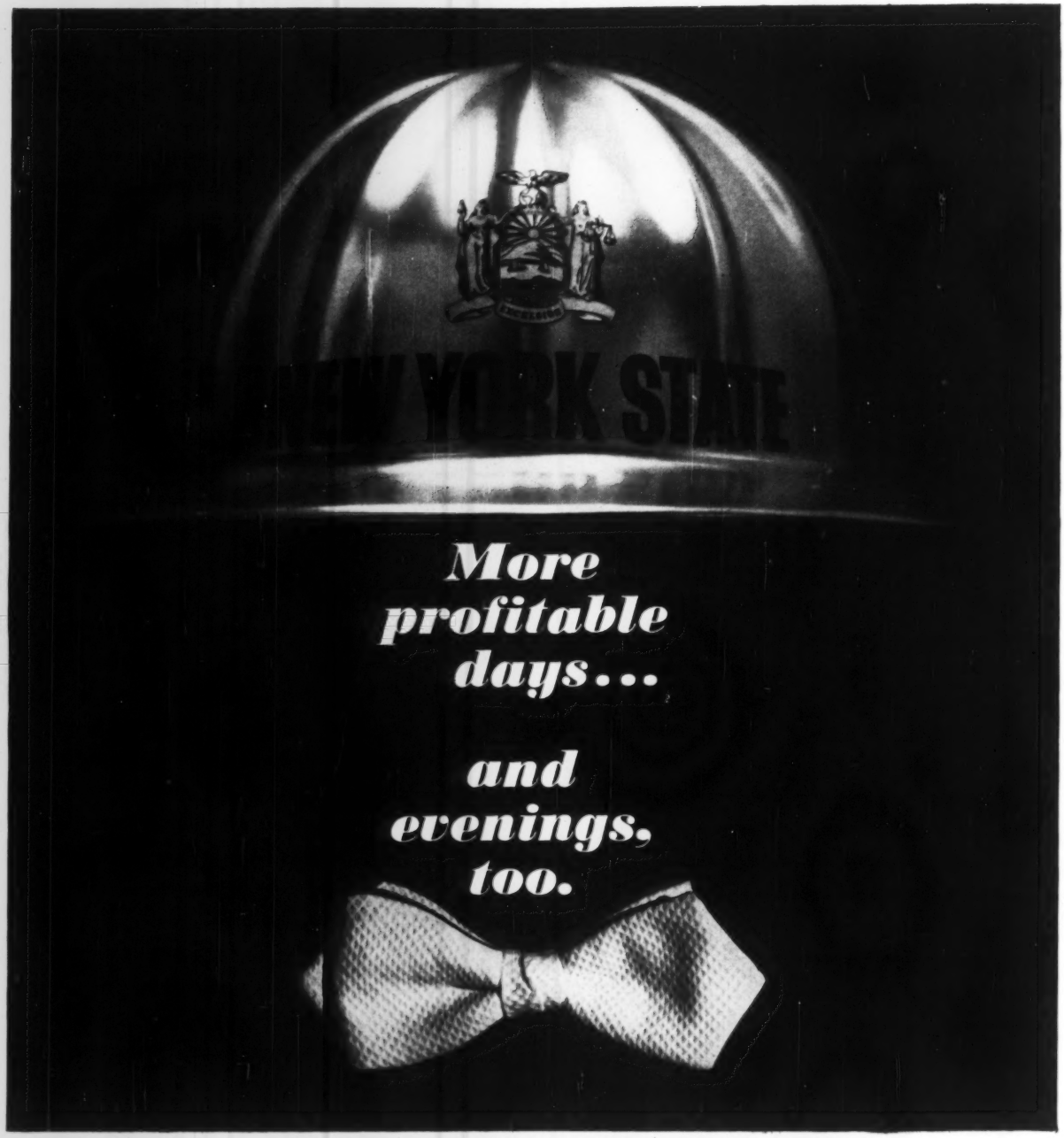
FORD DIVISION, *Ford Motor Company*



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We'll compile a report tailored to your specific new plant needs. Write Commissioner Keith S. McHugh, Dept. of Commerce, Room 256, 112 State St., Albany 7, N. Y. (All contact between your office and ours will be kept *under* our hat.)

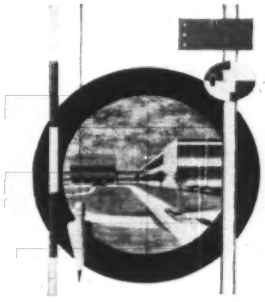
GET UP TO DATE ON NEW YORK STATE . . . WHERE THEY'RE TALKING THE BUSINESSMAN'S LANGUAGE

continued from page 68

chief executive, however, turned thumbs down on the recommendation made. He refused to build in the most potentially profitable location because "he just didn't like the place." The company continues to lose several hundred thousand dollars a year at its old site!

But the average business man can't allow himself the luxury of whims. He has enough trouble as it is, considering the site shortage, the clamor of development groups, the dearth of relevant data, and the losses that can result from one oversight.

Picking a good site is one of the most important decisions in the life of a company. In today's industrial world, it is also one of the most exacting. MELVIN MANDELL



III OVERSEAS CONSTRUCTION

Building abroad is a lot cheaper than buying—and it's not as hard as it looks if you dig up all the facts beforehand.

How to Write Your Own Ticket

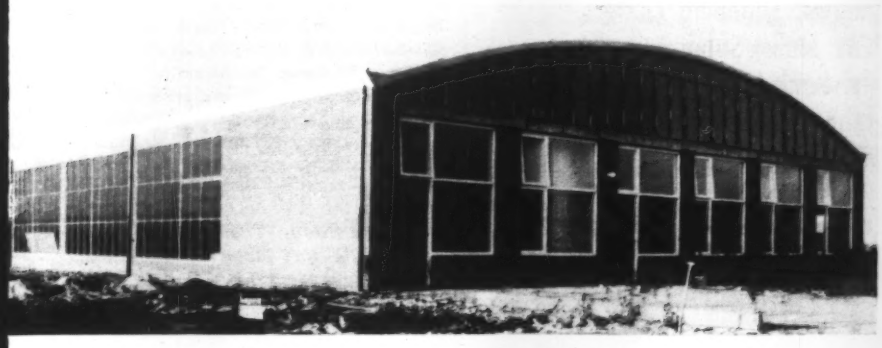
On August 21, 1960, Douglas N. Brooks, the 38-year-old president of the Brooks Instrument Company, Inc., boarded a KLM jet for Holland, determined to lay the groundwork for a manufacturing operation in Europe. Brooks was in a hurry. He was, he felt, a good two or three years late in starting overseas manufacturing. By the time he returned to Hatfield, Pa., ten weeks later, ground had been broken for the 14-year-old company's first overseas plant (see photo).

Brooks' experience overseas runs counter to that of most Americans who go to Europe on such missions: He decided to build instead of buy, and he made his deal without going through months or even years of site-seeking and all the other time-consuming preliminaries.

Brooks was able to move so quickly because he had narrowed his possible choices before he boarded the big jet. He knew that his plant—new or old—would be located within the Common Market area, most likely in Belgium or Holland. A few days after reaching Europe he settled on Holland for a very simple reason—the people he planned to send to Europe to manage and train the workforce knew only English, and more Dutchmen than Belgians speak English.

Once in the Netherlands, Brooks soon found there were no Dutch manufacturers with the special production skills to make the complex flow instruments his company specializes in. Buying or licensing was out of the question. The next possibility was to buy a factory and convert it, but Brooks, an engineer, calculated that on the basis of stabilized Dutch construction costs, building a new plant instead of buying a vacant old "bargain" was more sensible.

At this point, Brooks had a rare stroke of luck. A friend who worked for an established American plant in Holland lent him a copy of a detailed study of possible plant sites. With this report, and the help of the Netherlands Industrial Institute, Brooks



NEAT JOB: *The Brooks Instrument plant in Holland is so new that landscaping hasn't even been started. The square, 4,400-square-foot steel building, built on a brick foundation, has no supporting columns in the 65-foot clear span. Together with landscaping and a tiny parking lot (the 25 workers will use bikes), the plant costs under $20,000, about half of what it would be in the United States. It was designed for easy expansion by the addition of new segments. Meanwhile, company workers grow vegetables for home use on the unused land.*

SWEET LAND OF SOLVENCY

Look, no debt! A multi-million dollar surplus in the state treasury, in fact. No tax dollars required just to support a chronic overdraft! And that isn't all that's green in the *New Iowa*. Here are beautiful "storybook" communities and cities prepared and waiting for your new plant or branch office. To see what we mean, write today for the Iowa Industrial Resources Fact Book. All inquiries held in strictest confidence. Write Ed B. Storey, Director. Telephone: Des Moines—Atlantic 2-0231.

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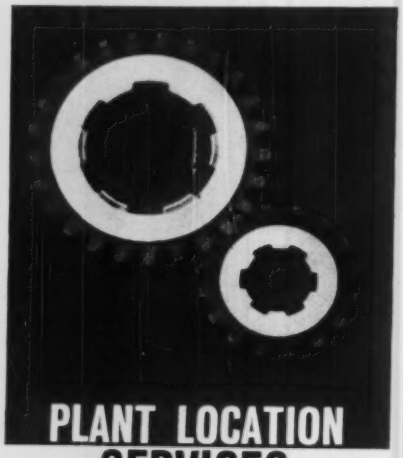

PLANT LOCATION SERVICES

Northern's location staff analyzes all important factors—sites, sources of supply, markets, power and fuel, financing sources, community environment—all tailored to your needs. For these free services to help you select the most profitable location:

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NORTHERN NATURAL GAS COMPANY
SERVING THE NORTHERN PLAINS ☐ GENERAL OFFICES: OMAHA, NEBRASKA

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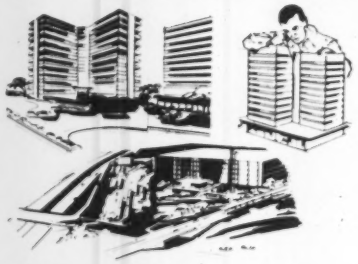

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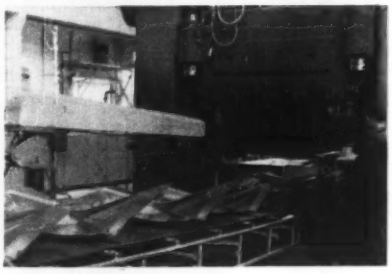
Meet Your Foreign Competitors



TOUGH COMPETITION: *Views of some of the well-equipped, modern plants that American companies must compete against if they build overseas. At top is the surgically clean "white room" where critical electronic parts are inspected at the Standard Telephone Company plant in North Woolwich, England. At center is Olivetti's new, completely conveyorized office-machine plant near Milan. This gives the multi-story building the same "flow-through" production common in single-story factories. At bottom, new equipment automatically yanks stampings out of a big press at the Daimler-Benz plant in Stuttgart.*

hit on a likely spot in a week.

Veenendaal, a semi-industrialized town with a population of 27,000, offered a combination of assets:

- It is on a turnpike leading to all major West European truck routes.
- It is a distribution center for the area.
- It is on the highest ground in Holland—all of three inches above sea level, which means that no expensive piling is needed for support.
- A good technical high school assures a supply of easily trained workers.
- Adjacent land for expansion could be put under option cheaply.
- The town fathers were anxious to attract industry and willing to cut the usual red tape. Ground was broken only four days after the site was selected. (Plans for the plant had been drawn up while Brooks was looking for a site.)

The plant will be operated as a subsidiary of Brooks' Swiss sales subsidiary established some years ago to service foreign markets. Construction funds for the Dutch facility are coming out of internal funds and a small bank loan. In addition, a leading Netherlands bank is supplying a mortgage on the building for only 4.5 per cent annually.

Many companies that want a share in the coming overseas boom are in the dark about how to start a manufacturing operation overseas. They discover that the best European contractors are booked up for years and decide they'd better buy out a foreign company or go into joint venture (required by law in some countries).

Yet American companies could save a lot by building instead of buying, according to one foreign expert. Many disillusioned U.S. business men who've been on overseas company-buying tours complain that the foreigners "ask the moon" for a 49 per cent share of their companies.

"Unfortunately, vital statistics are even harder to come by overseas than in the U.S.," reports Martin Lederman, a consultant who spends six months a year in Europe. Many foreign countries and localities, he points out, simply do not compile such basic information as wage, power and transportation rates, etc. And not all European plant location "experts" can be relied on.

But it is not impossible to obtain needed data, as Brooks found. Holland and Great Britain are attuned to

NEW

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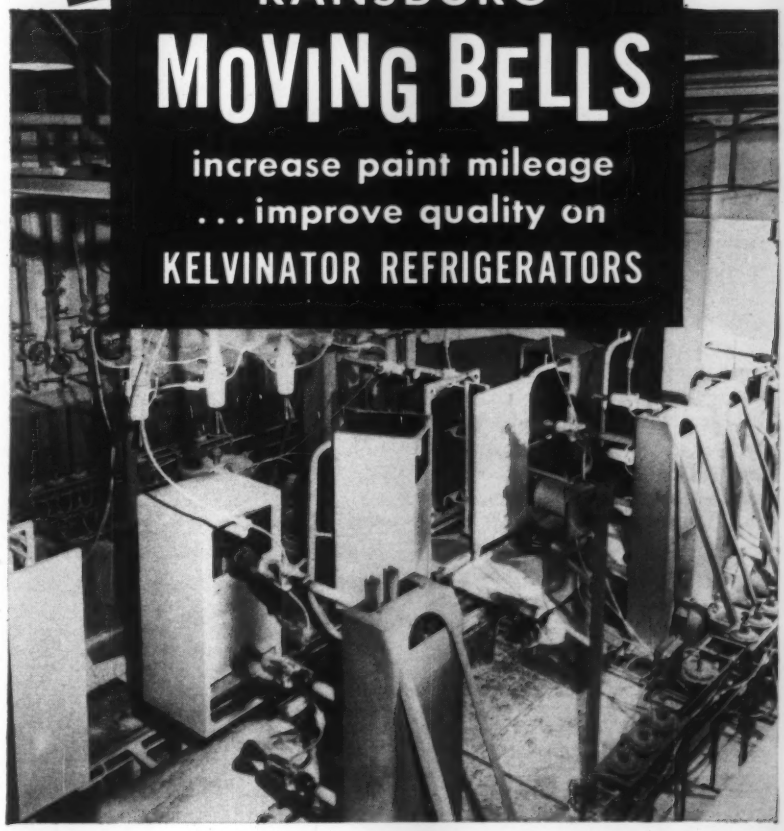
MOVING BELLS

increase paint mileage ... improve quality on KELVINATOR REFRIGERATORS



Ransburg's No. 2 Process moving bells—latest innovation in electrostatic painting—automatically paint mixed sizes of refrigerator cabinets and doors on Kelvinator's new finishing line.

On this job—first of its kind—limit switches re-position the reciprocating bells to accommodate various model sizes mixed on the same line. And, electric eyes selectively trigger the paint on and off between parts.

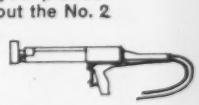
RESULTS? Automatic electrostatic spray painting—which replaced a battery of reciprocating automatic air guns—is providing Kelvinator with a beautiful, higher quality, and more uniform finish. Rejects, formerly a troublesome problem, have been practically eliminated. And, along with appreciable labor savings in this highly automated set-up, paint mileage is substantially improved . . . even bettering the savings indicated in pre-installation lab tests at Ransburg.

Like Kelvinator, other manufacturers of quality products will find Ransburg's moving bells the automation answer for production lines where batching of similar parts is impractical.

NO REASON WHY YOU CAN'T DO IT, TOO!

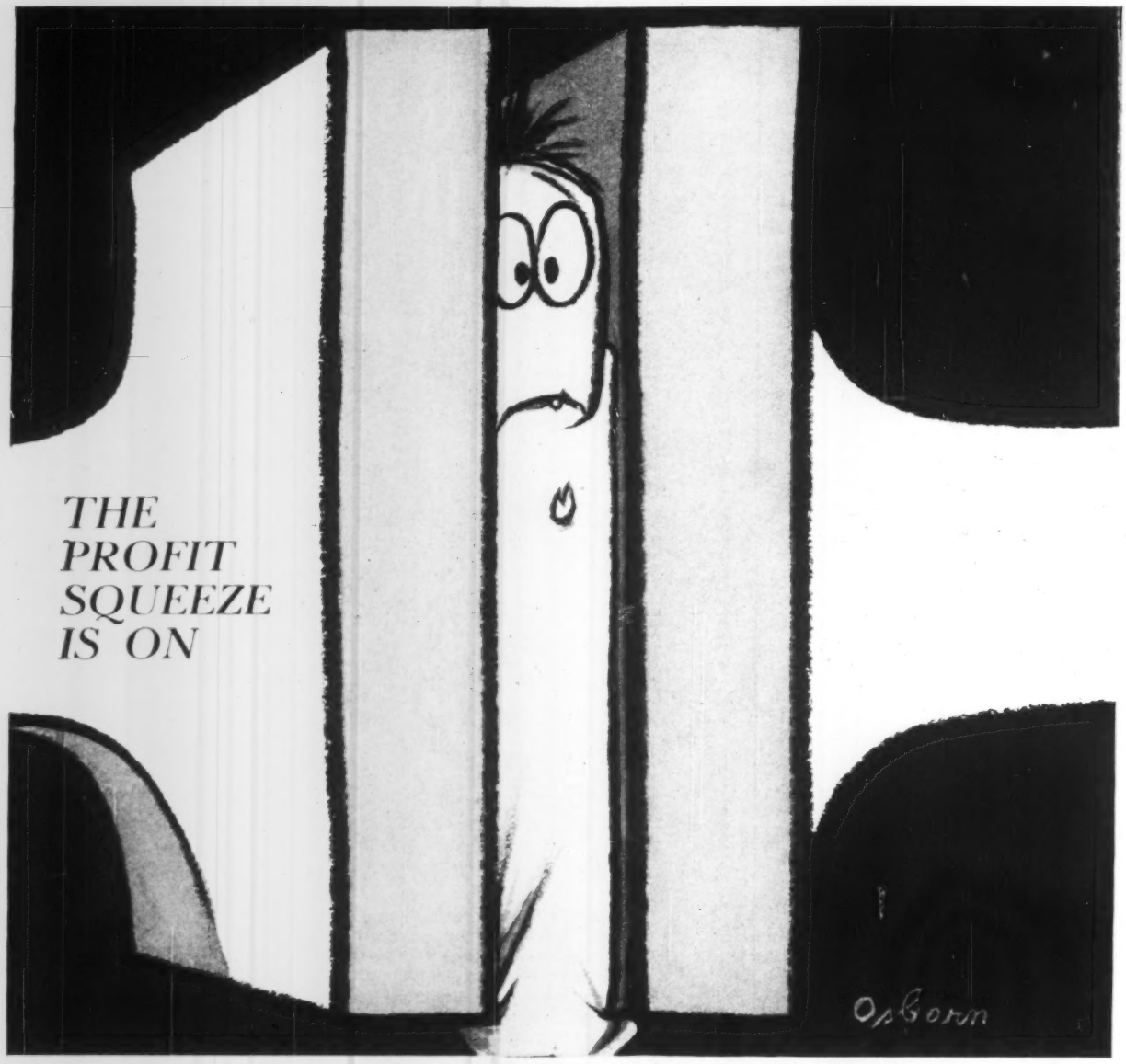
Want to know how Ransburg No. 2 Process can improve the quality of YOUR painted products—and at the same time—cut YOUR paint and labor costs? Write for our No. 2 Process brochure. Or, if your production doesn't justify automatic painting, let us tell you about the No. 2 Process Electrostatic Hand Gun which can be used in either conveyorized, or non-conveyorized painting.

RANSBURG



RANSBURG Electro-Coating Corp.

Box 23122, Indianapolis 23, Indiana



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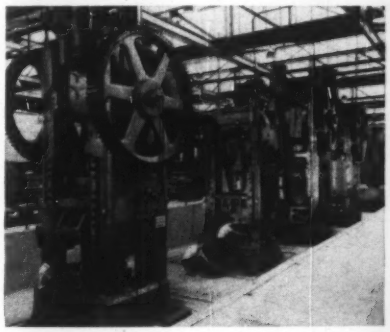
the needs of site-seeking American executives. In contrast, it is much more difficult to obtain information in France, Germany, and Belgium. And Italy is "impossible," says Lederman. Once you leave Europe to look into other continents, gathering data takes on the character of a children's treasure hunt planned by an especially wily and wicked djinn.

Outside of Europe and the Western Hemisphere, the only nations with any manufacturing open to American investment are Japan, Australia, South Africa, and India. Of these, Australia appears to be the best bet: American investments there, rapidly approaching the $1-billion mark, have more than tripled in the past decade.

Complex regulations, too much red tape, and an unfamiliar legal system make it very difficult to set up operations in Japan. South Africa, a recent favorite for American investment, is under a darkening cloud. India welcomes American manufacturers, but many of them are wary of its thinly-spread economy and the government's semi-socialist economic philosophy.

American companies seeking to share in rising prosperity abroad may yet be frustrated by the parallel rise in nationalism. Canada, which has long been the favorite foreign investment center for U.S. manufacturers, appears to be adding a few snorts to the worldwide "Yankee Go Home" chorus. The new 65 per cent tax on profits taken out of Canada, a reflection of the country's spotty economy, makes that nation appear much less neighborly to U.S. industry.



TOUGH BRAKE: *Four big Toledo presses being installed in Bendix's new brake plant in Campinas, Brazil—second biggest in the Western Hemisphere.*

The rate of American investing in Latin America declined rapidly in the last three years—for good reason. For U.S. companies, nationalism south of the border has been compounded by the prevalence of inflation and fears that Castroism will spread. Nevertheless, some big American companies, such as Kaiser Industries, Bendix Corp., and W. R. Grace, are still enthusiastic about building in Latin America and other companies are beginning to join them.

Puerto Rico, Jamaica, and the Bahamas remain as friendly as ever toward American industry, and what they lack in skilled labor and an industrial base they make up in lower wage rates and tax concessions.

The outlook on overseas investments could be shifted by the new Administration. There's talk that to support U.S. foreign policy, industry may be encouraged even more to invest in the underdeveloped countries instead of the industrialized nations.

In the meanwhile, it appears that American companies which have already started manufacturing overseas have gained a competitive advantage

continued on page 81

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NEBRASKA'S NEW

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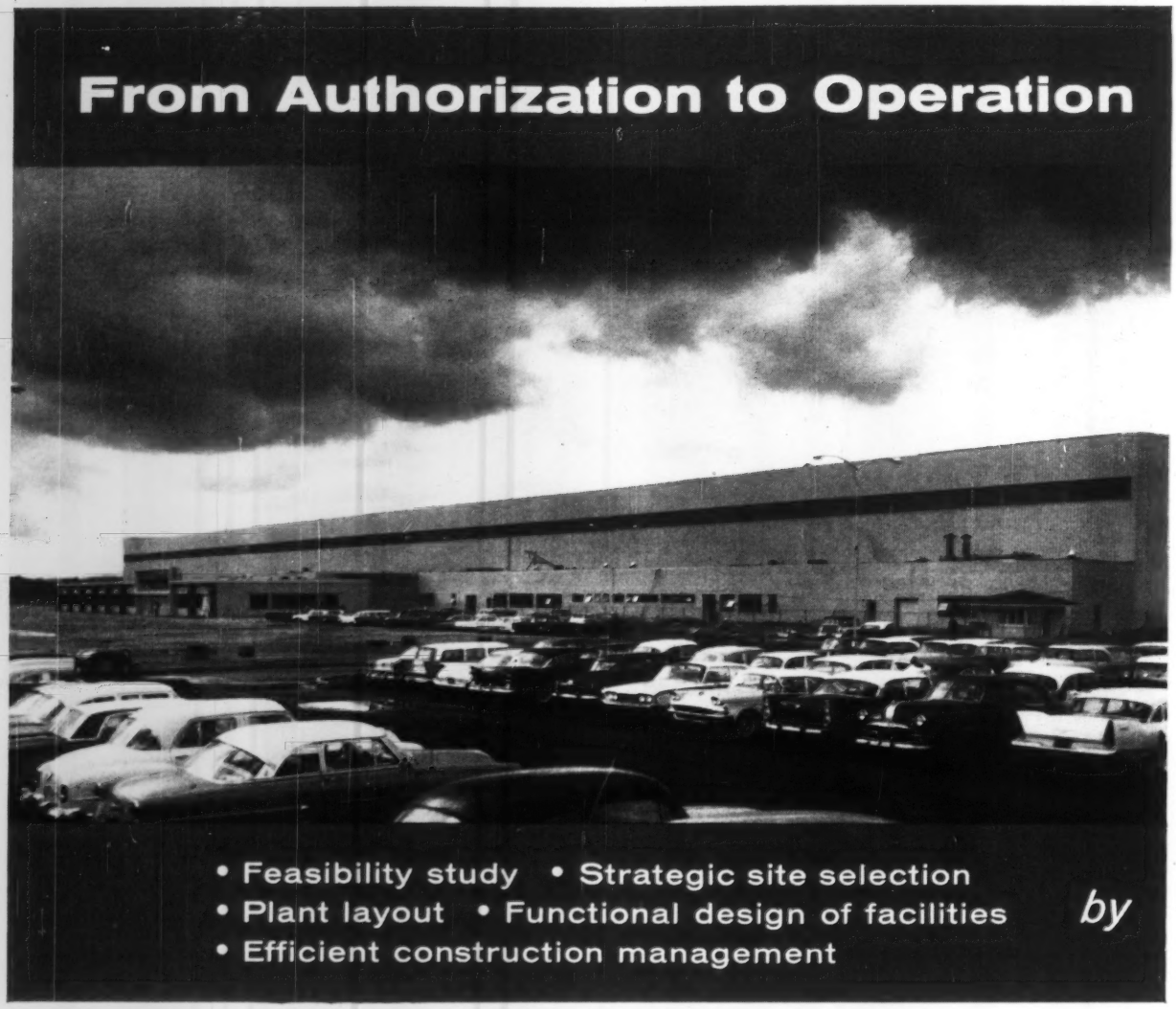
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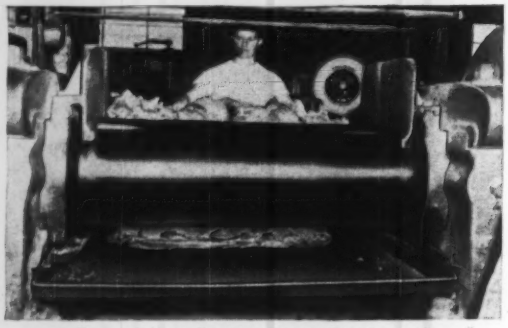

Reeves-Vulcan Division makes Durofyne offset printing blankets . . . Vulcan diaphragms for gas meters . . . Coverlight for trucks and boats . . . Coated fabrics for rainwear, life rafts, wading pools, air mattresses . . . Reevecote for gaskets, oil seals, cable wrappings, etc.

Local labor mans the plant and, according to management, is quick to learn. Buena Vista is located in beautiful Shenandoah Valley near Lexington, historic college town. Recreational facilities are excellent, climate is mild.

When Reeves Brothers, Inc. decided to move its Vulcan Division to a more advantageous location, they chose Buena Vista, Virginia. Records of the Virginia plant prove the wisdom of this choice. Over a period of 7 years, training time for local unskilled employees has been reduced from 6 months to about 4 weeks. These quick-to-learn Virginians keep production efficiency high, customer complaints low . . . and the plant has operated since May, 1956, without a single disabling injury. A record of over 3,000,000 safe man-hours was compiled and the plant has won the National Safety Council Award in its class for 4 consecutive years — a tribute to the skill and responsibility of its personnel.

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You, too, can find these... and many other great competitive advantages in **VIRGINIA**
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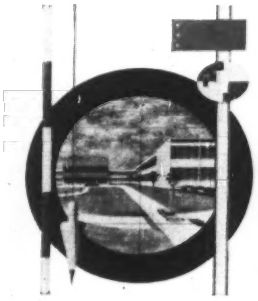
that the Johnny-come-lately may never overcome. Buying a foreign company may appear a quick way to narrow the gap. But if the only foreign manufacturing concerns for sale are second-raters or sick companies—and they're likely too over-priced at that—the intelligent alternative is to start from the ground up. Open a sales office to learn the territory, then put up a brand-new plant as volume builds. There are lots of pitfalls to building a plant overseas, but there are none that savvy, patience, and energy can't avoid.



IV SERVICE LABORATORIES

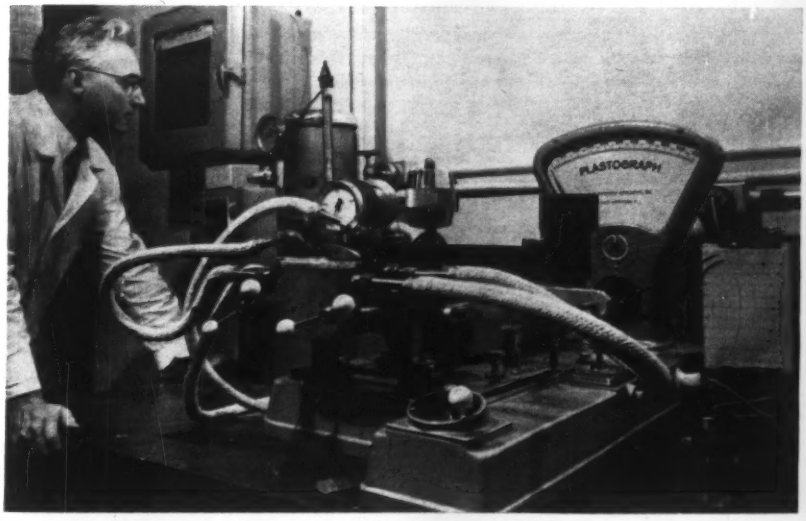
Technical service labs lure customers, discover new uses for company products. Today they're going up all over the country.

One Boom That Won't Quit

The urge to woo the industrial customer—an urge that gets really acute in a recession—is today sparking a brand-new building boom in technical service laboratories. Despite the current stress on modernizing or closing older plants and on "stretch-outs" in new construction, more and more companies are building special facilities to demonstrate that their products can solve the customer's problems—and often to show them how. In addition, technical service experts frequently take the offensive and dream up entirely new uses for the company's products—then look for an interested buyer to take it from there.

Among the top companies already operating technical service labs are producers of metals, carbon, plastics, synthetic fibers, rubber, packaging, pulp and paper, and food-processing equipment. More industries will undoubtedly climb on the bandwagon and build these profit-generating facilities.

There's no question that tech service (or "use-research," as some call it) pays off. Says Dr. Arthur B. Steele, manager of technical service for Union Carbide Chemicals Company, "Use-research has greatly expanded our markets. In some cases, it attracted so many new competitors that our share of market is down, but our volume is way up."



OCTOPUS: *An example of the expensive equipment needed in a customer-service lab, this machine measures "melt viscosity characteristics" at Firestone Plastic's Technical Sales Service Laboratory in Pottsville, Pa.*

How much "togetherness"?

Separate buildings for technical design service are comparatively new in U.S. industry. For decades, companies handled any technical complaints or request for technical or design service in the company research lab or engineering department. Many, including large companies such as Monsanto and Allied Chemical, still do.

But as technical service work grew in volume and complexity, "rush" technical service jobs began to get in

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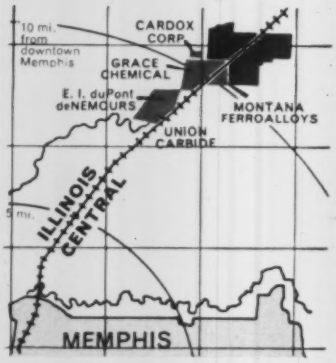
of Illinois Central property located north of Memphis at Woodstock, midway between Chicago and New Orleans . . . a fast growing industrial community with such fine neighbors as E. I. du Pont Company, the Grace Chemical Company, Union Carbide, Montana Ferroalloys and Cardox Company.



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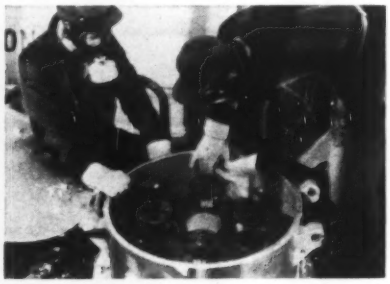
the way of regular research work, and many manufacturers started to think of technical service as a specialty in itself.

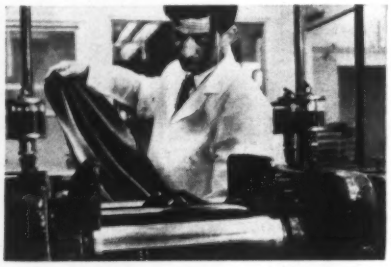
Also, as Gerard C. Heldrich, technical service director for W. R. Grace & Company, Polymer Chemicals Division, points out, they found that the best researchers aren't always the best technical service men. Says Heldrich: "Researchers in general are by nature more introverted, impatient, and lacking in diplomacy. In contrast, a good technical service man, like a salesman, must be an extrovert—and he's got to be patient with the customer." Another executive puts it even more bluntly: "The classical

TOO COLD FOR MAN OR BEAST: *But not too cold to test new formulations for wall tiles at Dow's plastics tech service lab, Midland, Mich. Like most, it has extensive environmental test facilities.*

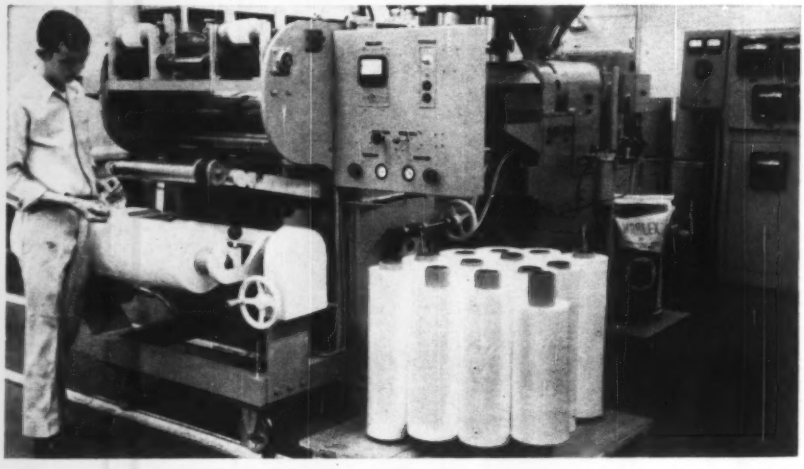


FIELD DAY: *Technical service personnel spend a good part of their time on customer needs and complaints. Here, Allied Chemical men look for leaks in chlorine tank cars at a customer's siding.*

WATER BOY: *A technician uses rolling pin to extract water from paper made with a new bleaching agent at DuPont's electrochemical sales service lab.*



SQUEEZE PLAY: *This rubber mill at the new $750,000 technical lab of United Carbon in Akron duplicates most commercial production facilities.*



FACTORY OR LAB? *Most technical service laboratories contain the latest production machinery used by customers. Here, a technician tries out a new plastic resin on a film extrusion machine at the Phillips lab.*

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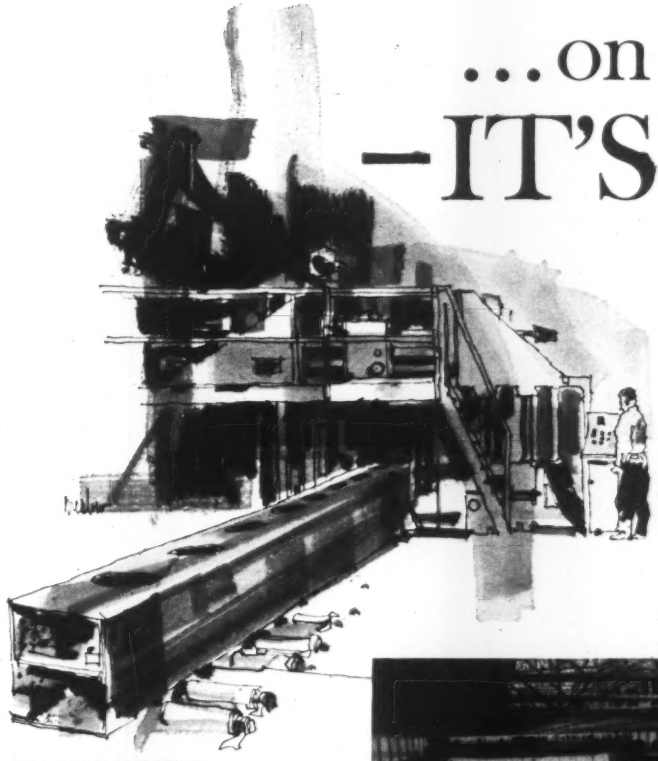
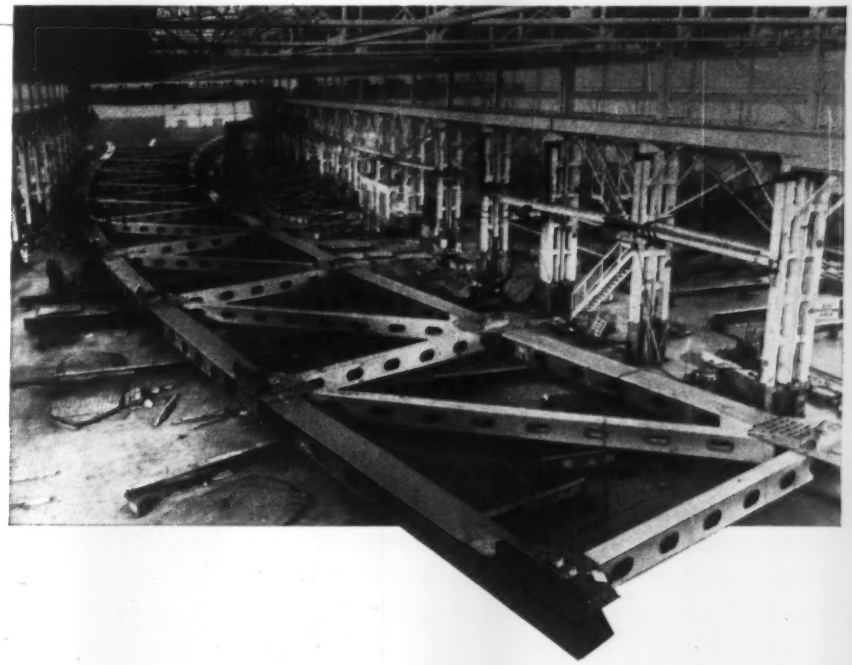


Mahon's Structural Division has just completed an important 'systems-engineering' project—on their own methods. The result: a new concept of fabrication technology. Mahon has integrated tape-controlled machining, automatic welding of the new high-strength (T-1 and N-A-Xtra) steels, improved handling techniques, conveyorized painting, and programmed erection—into one smooth-working, cost reducing operation. Management, whether involved with industrial, commercial or public works projects, can appreciate the inherent savings possibilities and other diverse advantages of the new Mahon approach to structural work. Mahon invites your inquiry.

CASE IN POINT:

Above: Now in use at Mahon, the Country's first application of numerically controlled machining to structural members. At right: In-plant fabrication of a giant span for the New Albany Bridge over the Ohio River.



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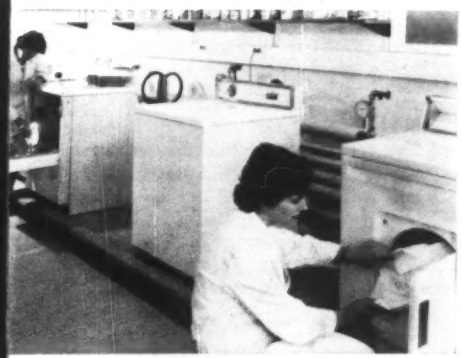
COLD-COOKING: *Most smaller companies still handle technical service in their research facilities. At the main laboratory of F. J. Stokes Corp. in Philadelphia, a technician evaluates vacuum freeze-drying for a food processor.*

lone-wolf scientist makes a lousy tech service man."

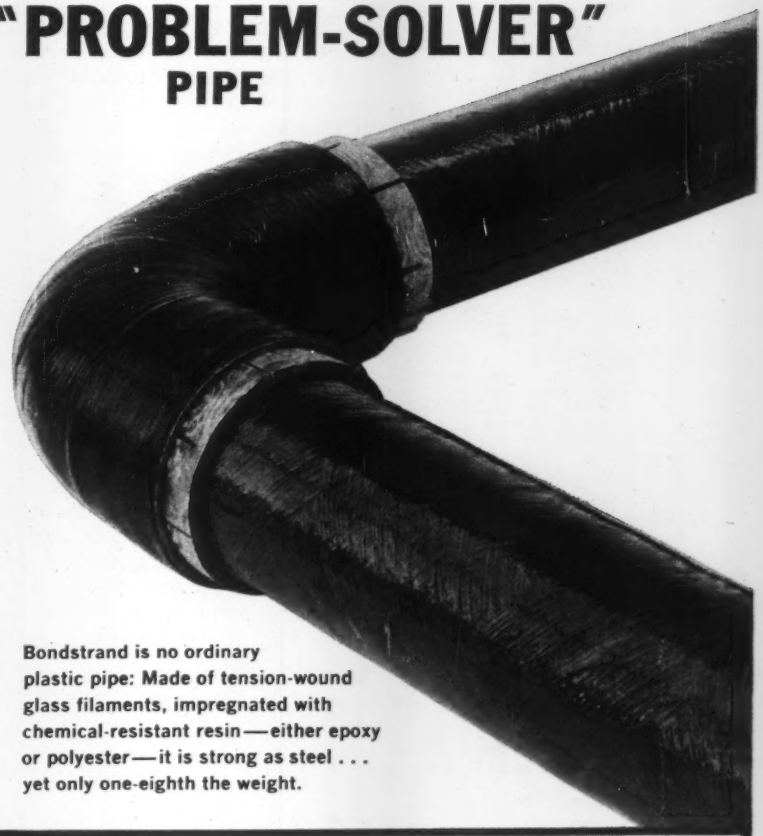
Dr. Steele cites another good reason for separating technical service from research. In the chemical industry, customers are often competitors as well. To avoid the embarrassment of barring visiting customers from confidential research work, he believes it makes sense to keep tech service and research far apart. The four-million-dollar facility he manages is in Tarrytown, N.Y., a long haul from the research lab in South Charleston, West Va. (See page 85, DUN'S REVIEW, March, 1960.)

Not all executives agree with Steele. Al Lindsey, acting manager of chemical technical service, Dow Chemical Company, cites one out-



EVERY DAY IS WASH DAY: *New detergent ingredients are tested under actual home conditions at Union Carbide's new tech service lab at Tarrytown, N.Y.*

BONDSTRAND®
THE "PROBLEM-SOLVER" PIPE



Bondstrand is no ordinary plastic pipe: Made of tension-wound glass filaments, impregnated with chemical-resistant resin—either epoxy or polyester—it is strong as steel . . . yet only one-eighth the weight.

THE PROBLEM	THE LOCATION	THE SOLUTION
Carbon black slurry destroyed schedule 40 steel pipe in 30 days	Synthetic Rubber Plant	Bondstrand installed 1959. No failure. Performance still rated excellent
Chlorine Dioxide water caused failure in stainless steel pipe	Paper Plant	Bondstrand installed 1958. Performance still rated excellent
10% Ferric Chloride solution destroyed ordinary steel or stainless	Sewage Treatment Plant	Bondstrand installed 1958. Performance still rated excellent
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Bondstrand's total installed cost can be actually competitive with ordinary carbon steel pipe. Write for bulletin containing physical and design data.

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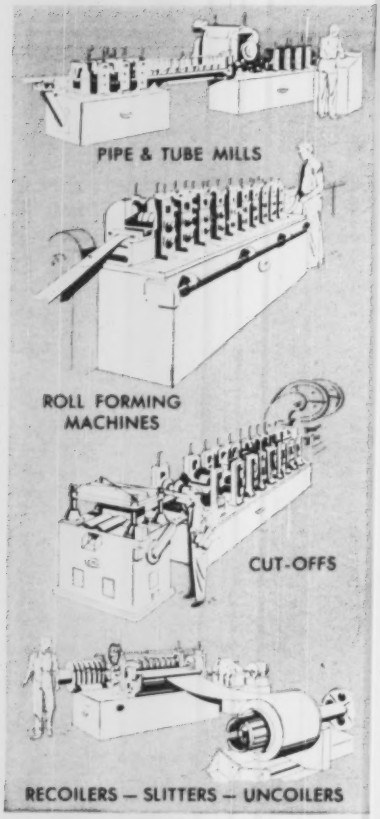

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standing return that his company has gained by keeping the service lab within shouting distance of the research lab.

Payoff on pay dirt

About seven years ago, as Lindsey tells it, a Dow technical service expert was touring the South African gold fields. He noted that repeated filtration was needed to remove clay from the gold ores and wondered if a chemical could do the job better.

Back in Midland, he told some researchers about his clay removal idea. One of them remembered a chemical with an affinity for clay that had been shelved five years earlier as a laboratory curiosity. Result: a new, highly profitable line of specialty chemicals developed to remove all kinds of impurities. Sales are now in the millions and, Dow figures, could reach $100 million a year.

Archer-Daniels-Midland Company is another big outfit that doesn't want more than a few yards separating tech services and research. Both will be part of the company's new "research center," which will be put up by 1962 on a 73-acre site in a suburb of Minneapolis.

There are three obvious factors to be weighed in selecting a site for one of these new customer-oriented labs:

- They must be easy for customers to reach.
- Since lab personnel must confer frequently with sales executives to decide how much "free" aid to give specific customers, the lab may have to be near company headquarters. Most companies also want their sales managers handy.
- If the service experts gather information on customer needs for the research staff, the technical service lab should be near the research lab. In addition, the service engineers sometimes run into tough problems that can only be solved in a full-scale research lab.

Where and why

Depending on which of these factors they consider most important, here's how various companies located tech service laboratories:

- The United Carbon Company set its $750,000 technical service lab right down where its main customers, the Akron rubber tire manufacturers, are concentrated. More than a thousand miles from company headquarters and the research lab in Houston,

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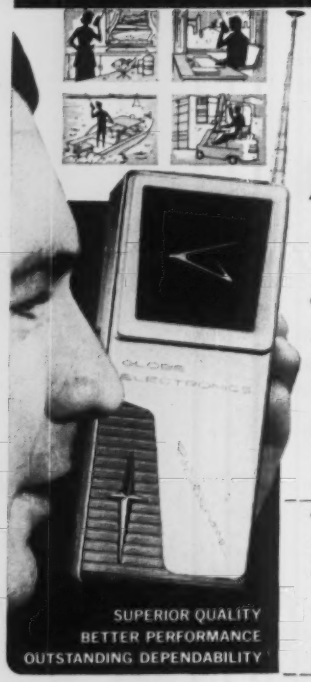

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tech service shares its building with the district sales force.

- In sharp contrast, the Phillips Chemical Company built its plastics resins tech service lab in Bartlesville, Okla., where company headquarters and the research lab are located. It is far from major markets, but Phillips' district sales managers arrange for top customers to make periodic visits to the newly expanded lab on chartered airplane flights.
- Kaiser Aluminum set up a Chicago lab serving can makers. It's close to markets, but thousands of miles from sales and company headquarters in Oakland, Calif., and the research lab in Spokane.
- At least two companies have set up regional customer service labs. Dow Chemical's Plastics Division has its main service lab in Midland, Mich., with smaller labs in Connecticut, Texas, and California. The main package development lab of the Container Corp. of America is in Chicago, where company headquarters are located. A dozen branch labs have been set up in Boston, Philadelphia, Los Angeles, San Francisco, and other major cities.

Like the American supermarket, the concept of the technical service lab is now being exported: The international division of Union Carbide is building one in Geneva.

Close by the customers

Four years ago, Grace Chemical's Polymers Division built a million-dollar technical service lab in Clifton, N.J., which is close to Grace's New York headquarters. Here, within a 50-mile radius, is nearly half of the entire national market for molding plastics. Also, because the big, specialized, little-used types of test instruments are available for rental nearby, the lab has been able to hold down its test equipment investment.

The lab is in a simple, one-story building which also houses the sales and administrative headquarters of the division and a separate small chemical lab that checks into possible reactions between foods and chemicals and the Grace plastics with which they are likely to come in contact.

Checking out the competition

Although the main function of the laboratory is service to customers, it also makes quality checks on competitive resins and helps set quality specifications for the Baton Rouge

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With water tables going lower, and contamination of rivers and streams increasing, the problem of suitable water supply for a new industrial plant grows more and more complicated.

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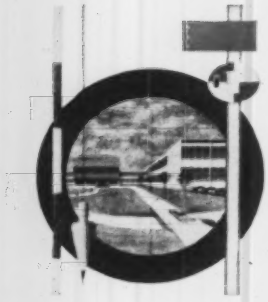
production plant, based on customer needs. In addition, it evaluates all new resins developed at the company's research lab.

Besides customers, competitors are quite welcome at most companies' technical service labs. Reason: the hosts want every member of their industry to offer technical service instead of price shading as a means of gaining customers. In addition, they want every competitor to bear the same costs of selling—technical service costs can run as high as 8 per cent of sales for a new item. The head of one Dow Chemical service laboratory boasts that his toughest competitors, such as DuPont, have accepted his invitation to go over the lab he directs. Some have even borrowed the building plans.

Industry's customers are demanding and getting more technical service. To stay in a raw material, packaging, or equipment market without resorting to price-slashing tactics, companies must offer comparable service. Hence the boom in building these practical new laboratories—a boom that shows no signs of tapering off.



V METHODS & MATERIALS

Out where the costs grow high—on the construction site—they're beginning to use new techniques to bring building prices down.

Brick & Mortar Come of Age

The technology of industrial construction moves at a snail's pace—over a course twisted by two big detours: obsolete building codes and union featherbedding.

Yet new methods and materials are becoming available to fill industry's growing needs for versatile, low-cost production facilities. Besides demanding flexibility, functionalism, and good looks, companies today want to get more out of their construction materials than ever before—and the construction industry is doing its best to fill the bill.

In structural materials, the coming thing appears to be concrete—reinforced, pre-cast, and pre-stressed. Particularly in Southern and Southwestern states, where steel is under a transportation handicap, more and more buildings with concrete structures, tilt-up side panels, and even roof panels are going up.

A big factor in all this is the advance in concrete technology. Architects who once could specify only flat surfaces in concrete can now design curved and three-dimensional surfaces that support great loads. The Federal Government is aiding the development of concrete by cosponsoring (with the Portland Cement Association) large international technical meetings on the chemistry of cement.

More and more companies are taking advantage of the pre-stressed lift-slab method of putting up multi-story buildings. This technique was invented twelve years ago, which makes it only a lusty infant compared with older methods. The basic idea is simple: All floors are cast one-by-one in pre-stressed form at ground level (see photo on page 94). As soon as the top level hardens, it is slowly jacked to the top of the supporting columns, which can also be of pre-stressed design. Meanwhile, the next level is being formed.

To date, most lift-slab structures have been commercial, school, and residential buildings. However, the technique has substantial promise in multi-story industrial construction of warehouses, research buildings, and administration buildings.

Two points should be kept in mind if you're considering lift-slab. First, the ground must be level. Second, your contractor must know his stuff. James Hagedorn, partner in John L. Bartolomeo & Company, Chicago architects, warns that on some lift-slab jobs, handled by inexperienced constructors, floors have buckled while being lifted into place. In addition, labor restrictions can cancel any cost savings. In some Northeastern states, the unions require that unneeded laborers and hoist engineers sit around idle, drawing pay.

The lift-slab technique is seldom used in building factories. New multi-story plants are such a rarity today that bankers tend to stay away from financing what could turn out to be a white elephant. Sheldon Simon of Loral Electronics Corp., reports that one of his company's new plants, originally planned for four stories, wound up as a two-story building at the insistence of the financing group.

At least one participant in a DUN'S REVIEW roundtable, President Edward A. Miller of Fenestra, Inc., thinks that part of concrete's growing popularity as a structural material is due to "complacency" in the steel in-

continued on page 92

MANY-FACETED GLASS: *One of the oldest construction materials now appears in new forms. Top, Pittsburgh-Corning cellular glass is installed to absorb sound. Each Foamglas block is mounted on four small pads. In lower photo, Foamglas insulation is used in air conditioning equipment "penthouse" atop Hanes Hosiery Mill, Winston Salem, N.C. The panels are covered with galvanized sheet steel skins.*

SPECIAL REPORT CREDITS: *Page 40,* H. Armstrong Roberts photo; *page 41, top four photos,* Gene Pesek, *bottom,* Prestige Photos; *page 44,* Rotkin, P.F.I.; *page 48,* Always Available; *pages 51 and 54,* Prestige Photos; *page 59, left,* Ed Nano, *center and right,* Prestige; *page 60,* Pesek; *page 62,* Prestige; *page 64,* Doane Studio; *page 94,* Gilbraith Solar Photo, Inc.; *page 98, left,* Stuart-Rodgers Studio, *right,* Tom Kirkland; *page 100, left, top to bottom,* Pesek, Prestige, Nano, *center left, top to bottom,* Nano, Nano, Prestige, Pesek, *top center, left to right,* Prestige, Nano, Pesek, Prestige; *page 101, right, top to bottom,* Nano, Nano, Prestige, Nano, *center right, top,* Pesek, *second from bottom,* Nano, *bottom,* Prestige.

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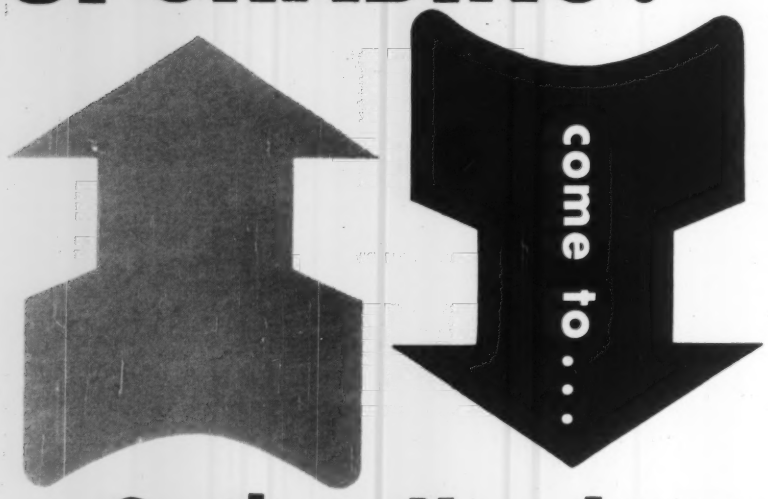

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continued from page 90

dustry. Another reason, pinpointed by Charles Roberts, executive vice-president of Macomber, Inc., was the steel shortage of 1956–1957.

Both these experts say that the steel industry is now awake to the threat of concrete—and that the company which wants to build a new plant can soon expect better value as a result. To speed the day, many construction men would like to see the accepted maximum working stress of structural steel raised from the present 20,000 pounds per square inch. "You have got to get more carrying capacity per pound of steel at less cost," says Roberts. "That is going to be the only answer to pre-stressed concrete." At 24,000 psi, for example, 20 per cent less steel would be needed for a given structure. With the quality and uniformity of structural steel what it is today, construction experts declare that there would still be an ample safety margin.

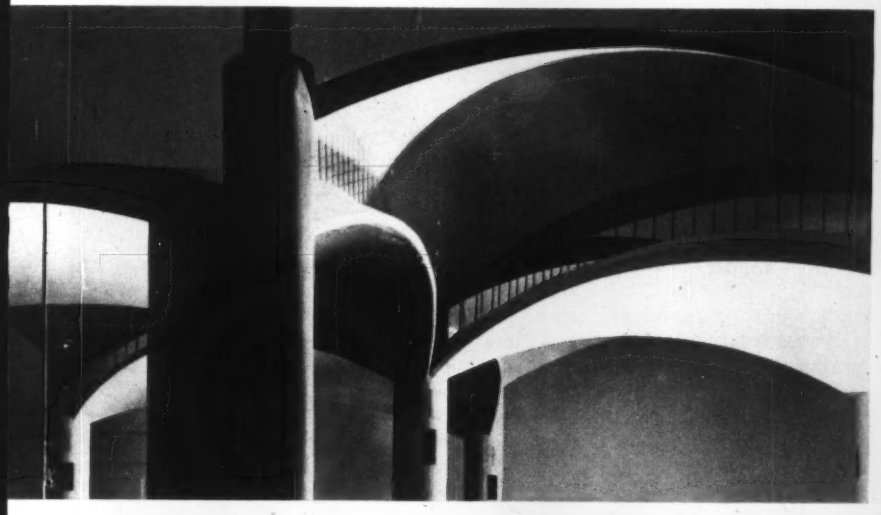
Besides concrete, laminated wood is also gaining ground as a structural material for beams and other load-supporting elements in one- and two-story industrial buildings. Besides its lower cost, a wood structure with a fire-resistant siding such as Transite or masonry actually represents a lower fire risk than a comparable steel-structured building—if a big fire breaks out, exposed steel loses strength and eventually buckles, but laminated wood beams merely char. In many areas, fire insurance on wood structures is 10 per cent lower.

Since walls, ceilings, and the like are subject to fewer code restrictions than structural elements, there's more room for changes and variety.

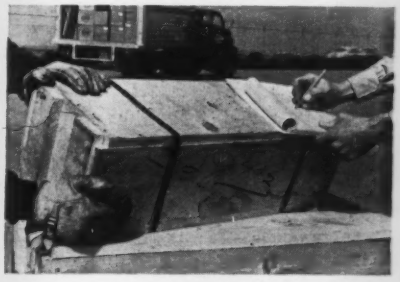
As long as obsolete building codes called for thick masonry, few companies were interested in metal curtain walls. Steady relaxation of building codes across the nation has spurred the trend toward new curtain wall materials for industrial buildings. Today all sorts of new materials and components are threatening the traditional brick and masonry walls: steel with vinyl or porcelain coatings; colored, textured, or porcelain-coated aluminum, aluminum sandwiches with

▶

POETRY IN CONCRETE: *A striking example of the imaginative use of concrete in the new Olivetti plant at Sao Paulo, Brazil. The lower shots show the interior. Roof sections were cast as monoliths.*



FAST DELIVERY STEPS UP SALES



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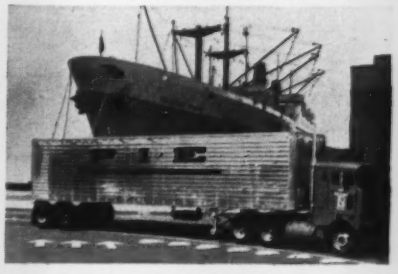

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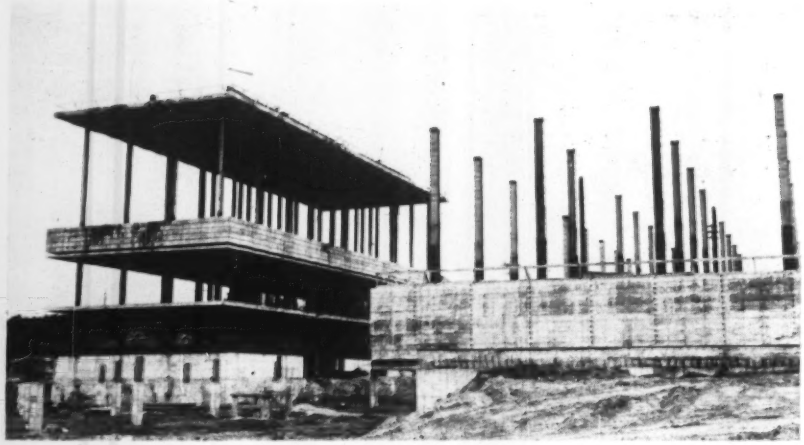


COST-CUTTER: *"Lift-slab" technique at work. The cast-in-place pre-stressed concrete floors have been partially lifted at left, are waiting to be hoisted at right. The new method, already popular for commercial, school, and apartment buildings, spells big savings in multi-story industrial construction as well.*

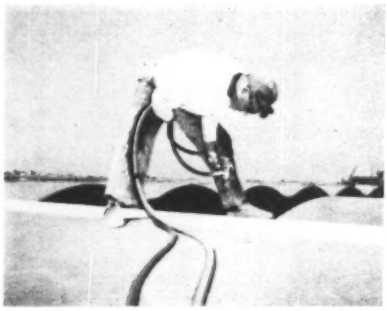
insulating plastic foam middles; precast patterned concrete panels; steel sandwiches on paper honeycomb—there's a tremendous variety, in all the colors of the rainbow, for industry to choose from. Even composition siding and roofing material like Johns-Manville's Transite now comes in color. On the basis of lifetime or accelerated weathering tests, the colors of almost all those materials are guaranteed for a minimum of 10 years, and suppliers say that is conservative.

When expansion is in order, these new curtain-wall materials can be quickly pulled down and then set up again.

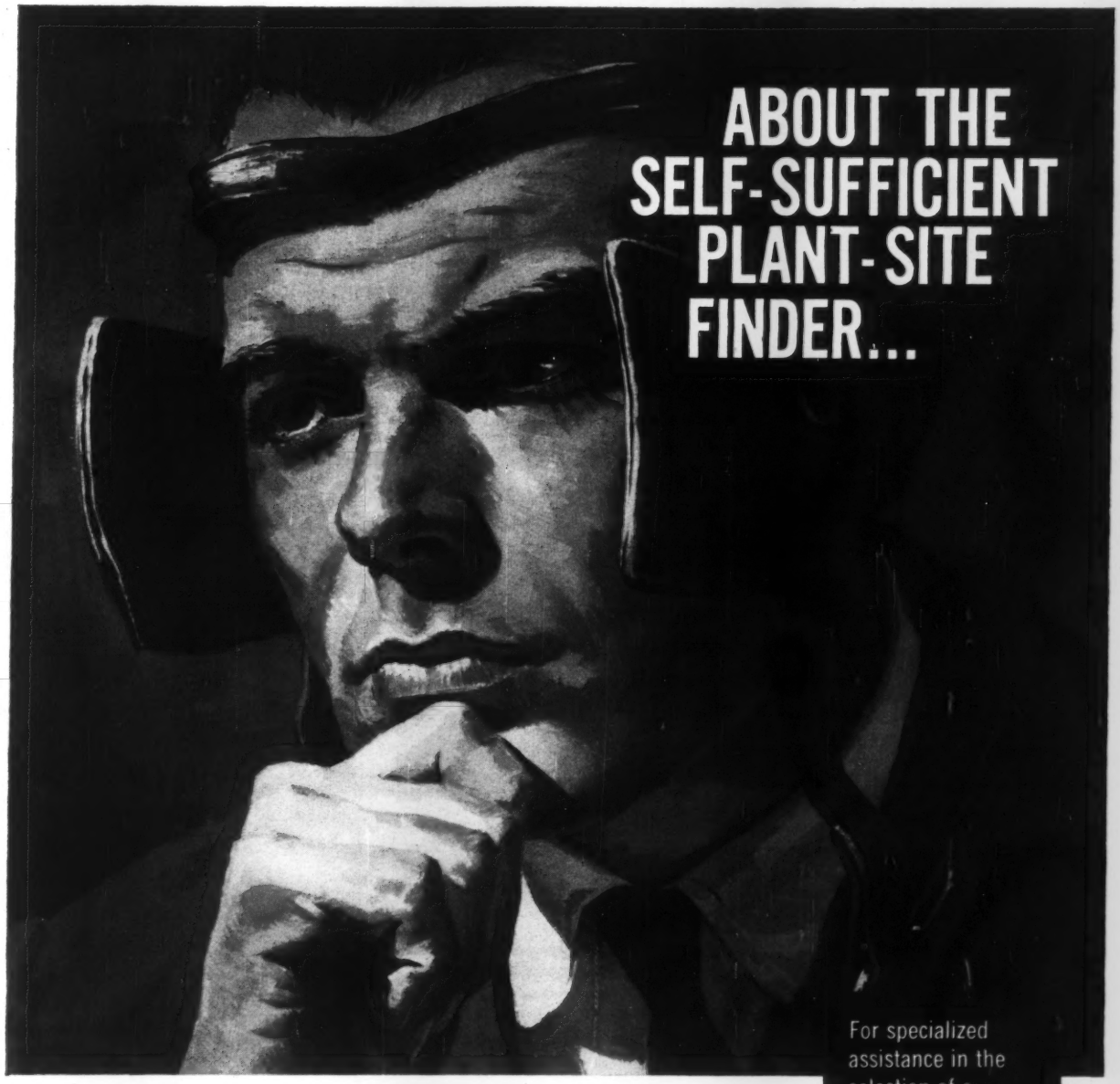
For the fancy entrances now common in many industrial buildings, marble veneers are increasingly popular. Nowadays, a company buying a marble front can be reasonably sure how long it will stay new and shiny. The engineering and weathering properties of all domestic marbles have recently been determined and gathered together in one handbook written by ceramic researchers at Armour Research Foundation.

Even prosaic brick and masonry are benefiting by modern technology. Stanford Research Institute is close to solving the nagging problem of efflorescence, the powdery unsightly white crust that appears on bricks, usually a few months after they have been laid. A chemical introduced into the mortar prevents this crusting, which causes paint to peel off.

A new way to strengthen masonry walls—the use of continuous metal ties instead of the brick ties required by many local building codes—was the subject of a study recently completed by the Armour Research Foundation for the Dur-O-Wal Divi-



SQUEEZE TO APPLY: *Two more processes that lower labor costs. At left, a new Flintkote gun sprays a fiber-glass-reinforced compound on roofs. With the other gun, one worker quickly coats an entire concrete roof with bakelite vinyl.*



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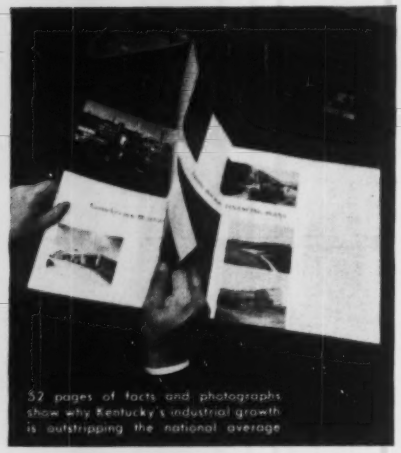

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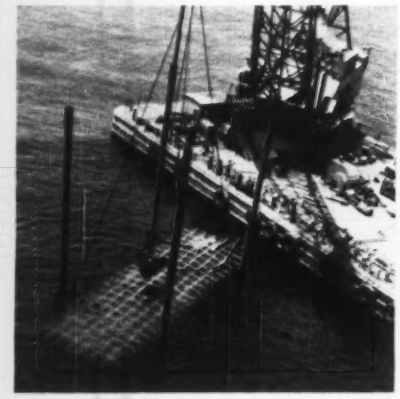
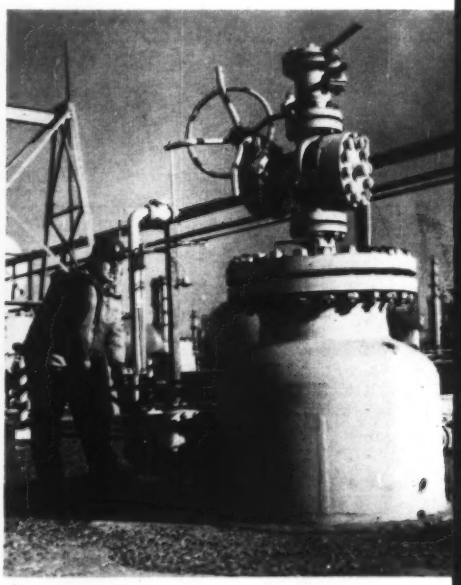
sion of the Cedar Rapids (Iowa) Block Company. The study shows that once an initial failure has occurred in a wall, the metal ties hold it together much better than layers of bricks. What's more, the metal-tied masonry wall resists water penetration far longer. Since masonry curtain walls often crack as they settle, industry stands to save on building maintenance costs as a result of this advance.

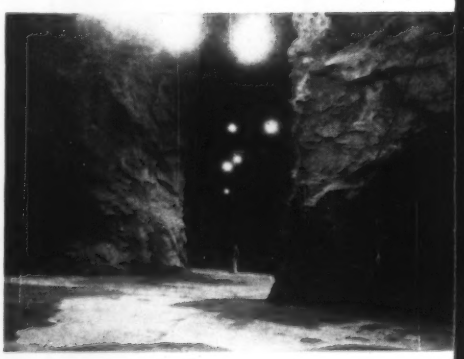
New methods of laying roofs (see photos on page 94) are in use. Plastic roofing materials, sometimes reinforced with glass fibers, now make possible exceptionally low leakage and maintenance. Foamed glass panels—cheap, permanent, and completely waterproof—are also gaining steadily as a roofing insulation material. After the panels are laid in place, the roofing tar is poured right on top of them. Foamed glass is also offered as a sound-absorbing material by the Pittsburgh-Corning Corp. This manufacturer has developed a new sound-absorbing technique in which foamed glass blocks are erratically mounted on small pads about half an inch off walls or ceilings.

On the inside, removable partitions for office areas are in growing use, thanks to the flexibility of layout they



DAVY JONES' LOCKER: *Many companies with liquid storage problems are awaiting results of the Navy's new underwater storage system developed by U.S. Rubber Company. The grid-like object is a nylon harness that holds a huge filled rubber Sealdbin underwater between the pilings. If the system works, it may be adopted by companies along bodies of water for temporary storage of liquids. The submerged containers are protected from any temperature changes caused by sun's rays.*





BURIED TREASURE: *The valve in the upper photo is all that shows above ground to indicate one of the Sun Oil Company's three unusual underground storage caverns (lower photo). Hewn out of solid granite, the cave can hold nearly 17 million gallons of liquefied petroleum gas. The huge columns were left to support the roof, 40 feet up.*

DOWN UNDER, U.S.A. *Packing an order for office supplies in Jones & Laughlin's underground storeroom in one of the company's abandoned coal mines. Records make up the bulk of stored items.*

permit. However, the plasterers' and lathers' unions, faced with loss of jobs, may permit the introduction of new mechanized equipment that would greatly cut the cost of putting up permanent plaster walls. One West Coast plasterers' union is so concerned about preserving jobs that it just refused an automatic pay boost guaranteed by the contract. (In some Midwestern cities, painters' unions have agreed to work overtime at standard hourly rates in order to get more work.)

Flooring in plants is also getting a lot of attention. Too many companies have discovered, to their dismay, that

Back to the Cave

In this Space Age, most people look to the skies for new explorations. Hundreds of companies, however, are solving their storage problems by blasting off in the opposite direction. Already many natural caverns, as well as abandoned mines, quarries, and tunnels, are being used to store papers or propane, while one company is experimenting with tanks submerged in the sea (see photo).

Bidding against the Government, mushroom growers, chicken farmers, and art museums, corporations are buying, renting, or dynamiting millions of feet of underground space. The most common items stored underground are valuable records, but Inland Cold Storage Company, Kansas City, Kans., uses one big mine to store frozen food.

Since production of natural gas is fairly steady but demand rises sharply as it gets colder, oil and pipeline companies need cheap storage facilities. Caverns are the ideal answer. And if they're in nonporous rock there's no risk of leakage.

Jones & Laughlin Steel Corp. and Westinghouse Electric Corp. are two big companies that have saved money by looking beneath the surface. The steel company is using part of one of its worked-out coal mines to store records and office supplies at about $1.25 per square foot. This figure contrasts with $5.50 per foot at its downtown Pittsburgh offices.

The Westinghouse Electric Corp. headquarters building in Pittsburgh is connected by private wire to an underground vault that replaced two separate buildings in town. Costs of storing and servicing records have dropped 35 per cent, and requests are handled one day faster.

isn't this American rack installation a beauty?

American Rack installation at the Fleming Company, Topeka, Kansas. On left are open-end, drive-in racks, and on right are selective-type racks.

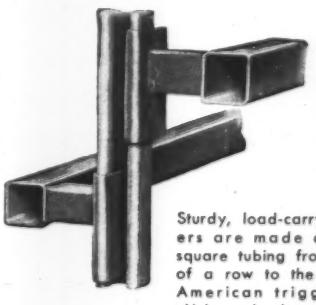
American
adjustable
STORAGE RACKS

are tough and rugged...designed to meet your storage problem efficiently and economically!

Whatever you want in storage racks, American's got it!... SOLID CONSTRUCTION—posts are specially roll-formed of extra heavy gage steel—stringers are one-piece continuous welded steel tubing—upright frames are cross-braced against sway—turnbuckles "level out" uneven floors... QUICK ASSEMBLY—all parts hook into place—no costly bolting... EASY ADJUSTABILITY—stringers work independently of any other part—they raise and lower like a window, on 4" centers... TOP EFFICIENCY—American racks utilize every inch of storage space—they save you time, labor and money from the very start of installation—they provide industry's highest safety factor for utmost protection.

American Open-End drive-in type racks

make aisle space storage space... ideal for bulk storage.

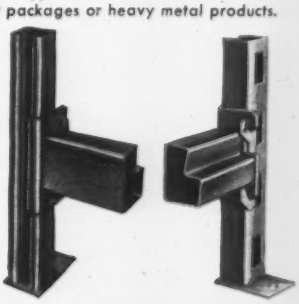


Sturdy, load-carrying stringers are made of rugged square tubing from one end of a row to the other. The American trigger-quick, slide-n-lock method of assembly saves time and money.

send for catalog

American Slide-n-Lock selective type racks

for all types of merchandise—whether light packages or heavy metal products.



Smooth line construction of aisle side of post and stringer eliminates hazardous protrusions. Note rigid connection when stringer is "locked" to post.

AMERICAN METAL PRODUCTS COMPANY
STORAGE RACK DIVISION
5969 LINSDALE AVE. amp® DETROIT 4, MICHIGAN

Manufactured in Canada by Sunshine-Waterloo Co., Ltd., Waterloo, Ontario

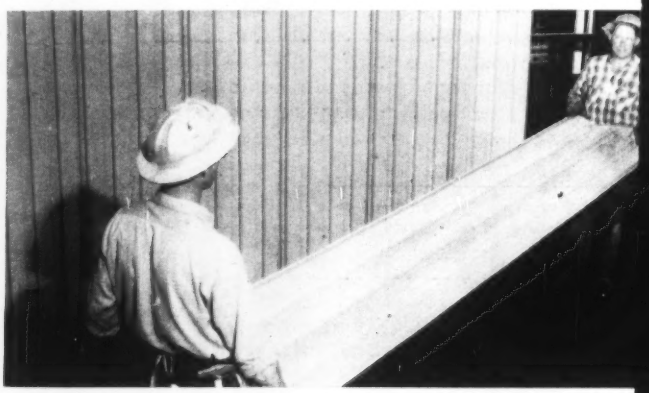
their old floors can't take the load of high-stacked materials made possible by new stacking equipment and techniques, according to Beshore of Automatic Transportation Company. For this reason, stronger floors are being specified in many new plants and warehouses. On the other hand, conservative architects may specify floors thicker than necessary for the loads they will have to bear.

Overhead conveyor and monorail systems, like higher stacking, also call for higher overheads. In fact, the new materials handling trends are a major influence on current plant design.

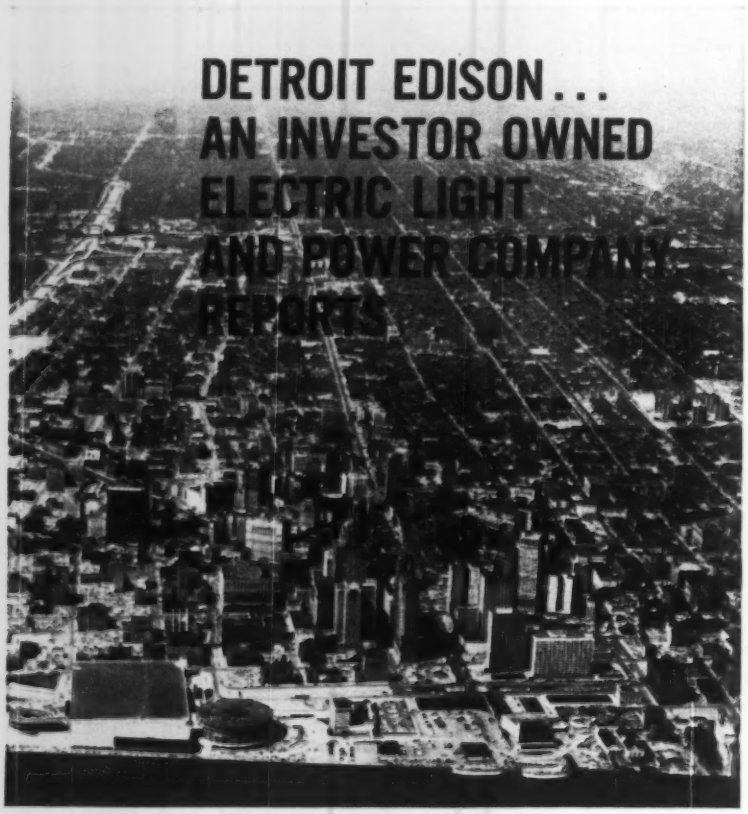
Slow as it seems, the pace of development in construction technology is picking up. If the pace of change in updating of restrictive building and labor codes could match the pace of technological advance, industry could save many millions each year in building vitally needed plants.

A list of participants in the three Round Tables appears on page 100.

ATLAS: *Workman installs a modular metal acoustical ceiling in the plant offices of the Magnaflux Corp., Chicago. The new Soundlock system, developed by the Kemp Corp., Birmingham, Mich., cuts sound transmission through overhead spaces.*



MAINTENANCE-FREE: *DuPont is testing these panels covered with Teslar film, one of many colored coatings now available on modular metal panels. The panels, for either siding or roofing, have a 15-to-20-year maintenance-free life.*



HIGHLIGHTS FROM
THE 1960 ANNUAL REPORT

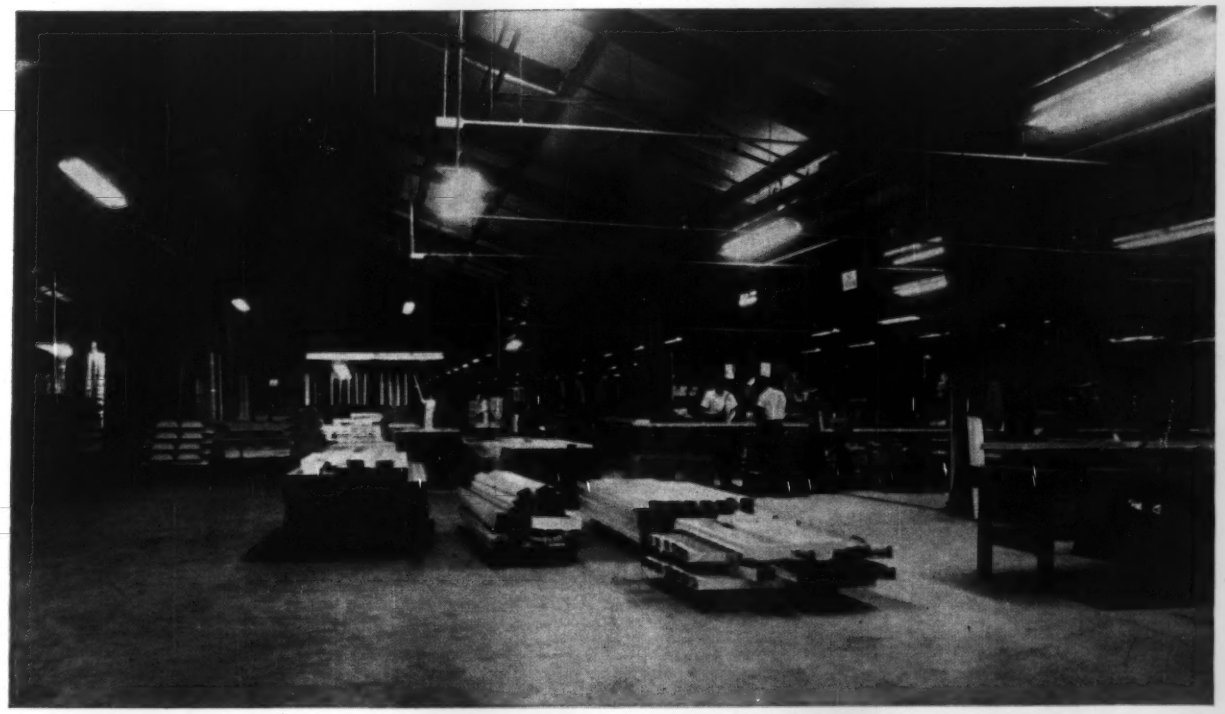
	1959	1960	% Progress
Net Income	$ 33,429,785	$ 38,457,309	15.0
Earnings Per Share	2.34	2.68	14.5
Gross Revenues	267,079,076	279,000,601	4.5
Expenses	220,375,276	227,062,732	3.0

Advanced planning, sound development and the efficiency of employes, combined with careful control of all expenses, are the key factors that have made possible the successful operation and financial progress of Detroit Edison through the years.

Detroit Edison now has more than 4 million kilowatts of electricity serving over 4 million industrious people in Michigan.

For a copy of the 1960 Annual Report, write to the Treasurer.

THE DETROIT EDISON COMPANY
Detroit 26, Michigan



Light & Power Utilities' new 112,000-sq.-ft. quarters in quality Stran-Steel were built under Mississippi's "Balance Agriculture with Industry" Program. Architects: Lee, Brumfield and Riggens, Jackson, Miss.; Stran-Steel Contractor: Dixie Metal Buildings Co., Memphis.

Quality that lowers costs *every day of the year*

Working to fixed costs on tight budgets? Then see how Light & Power Utilities Corporation got space, style and savings in their new Stran-Steel plant in Olive Branch, Mississippi! This lighting equipment manufacturer chose Stran-Steel to get maximum clear floor space to house bulky painting and metal-working facilities and plenty of leeway for future expansion, too. Yet Light & Power's Stran-Steel structure cost them only $2.23 per square foot. It was erected in just 100 working days—about half the time conventional construction requires! Stran-Satin walls and roof panels, color-coated at the factory, saved $12,000 in painting costs. Complete insulation, so easily and economically installed in any Stran-Steel structure, cut gas heater requirements by 40%, lowering costs an additional $10,000. And the owners will save $5,000 every year in heating, as much as 15% in air conditioning costs! Your local Stran-Steel dealer will be happy to show you how you can have quality and lower costs, too. He's listed in the Yellow Pages under STEEL BUILDINGS or BUILDINGS, STEEL. Or mail the handy coupon below.

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Company _____ *Phone* _____

Address _____ *County* _____

City _____ *Zone* _____ *State* _____

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Pictured here are Round Table participants whose photos do not appear on preceding pages.

BELL

HARAHAN

HILL

HUNTER

JOHNSON

BESHORE

BULLEN

DEJONGH

DE MOLL

DREW

GIERINGER

Around the Round Tables

Cleveland

CHARLES J. BELL, *Regional Sales Manager, Buildings Division*, Butler Manufacturing Co., Cleveland, O.

GEORGE BULLEN, *Executive Assistant to Vice-President Manufacturing*, Remington Rand Corp., New York, N.Y.

ERNEST DREW, *Vice-President in charge of Production*, Continental Machine, Inc., Savage, Minn.

DANA HILL, *Marketing Manager*, Mead Containers, Atlanta, Ga.

EDWARD A. MILLER, *President*, Fenestra, Inc., Detroit, Mich.

E. H. NICHOLS, *Manager of Sales*, Industrial Division, Republic Steel Corp., Youngstown, O.

CHARLES ROBERTS, *Executive Vice-President*, Macomber Inc., Canton, O.

WILLIAM S. ROBERTSON, *Vice-President of Sales*, Haughton Elevator, Toledo, O.

H. W. WORTH, *General Manager*, Minneapolis-Honeywell Regulator Co., Wabash, Ind.

Chicago

WILLIAM ANDERSON, *President, Contour Saws Division*, DoALL Co., Des Plaines, Ill.

JOHN C. BAXTER, *Plant Manager*, The Rapids-Standard Co., Inc., Grand Rapids, Mich.

CHARLES S. BESHORE, *Assistant General Manager*, Automatic Transportation Co., Div. of Yale & Towne, Chicago, Ill.

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R. F. BYRON, *Superintendent, Plant Engineering*, Hawthorne Works, Western Electric Co., Chicago, Ill.

HENRY C. EGERTON, *General Manager, Bulldog Electric Products Div.*, I-T-E Circuit Breaker Co., Detroit, Mich.

CARL K. GIERINGER, *President*, Cincinnati Time Recorder Co., Cincinnati, O.

JEAN HUNTER, *Assistant to Chief Engineer, New Products Division*, The Mead Corp., Cincinnati, O.

C. E. McNEAL, *Chief Plant Facilities Engineer*, American-Standard Corp., Louisville, Ky.

BURR TUPPER, *Director, Works Engineering Dept. Headquarters Manufacturing Div.*, Westinghouse Electric Corp., Pittsburgh, Pa.

New York

JAMES O. BOISI, *Vice-President Real Estate*, New York Central Railroad, New York, N.Y.

M. E. CUNNINGHAM, *President*, Cunningham-Limp Co., Detroit, Mich.

PETER DE JONGH, *Chief Engineer*, George A. Fuller Company, New York, N.Y.

JOHN D. DE MOLL, *Partner*, The Ballinger Co., Philadelphia, Pa.

AUSTIN KINGSLEY FERGUSON, *Vice-President*, Walter Kidde Construction, Inc., New York, N.Y.

W. J. HARAHAN, JR., *Assistant Director of Industrial Development*, Chesapeake and Ohio Railway, Huntington, W. Va.

M. W. JOHNSON, *Industrial Development Division*, Cincinnati Gas & Electric Co., Cincinnati, O.

DR. RANDALL T. KLEMME, *Vice-President*, Northern Natural Gas Co., Omaha, Neb.

FRANK E. NELSON, *Industrial Agent*, Rock Island Railroad, Chicago, Ill.

ROBERT W. PEARSON, *Director of Production*, American Machine & Foundry Co., New York, N.Y.

J. F. RUTH, *Superintendent, Plant Engineering*, Western Electric Co., New York, N.Y.

SHELDON SIMON, *Vice-President*, Loral Electronics Corp., Bronx, N.Y.

EDWARD B. STOREY, *Director*, Iowa Development Commission, Des Moines, Ia.

McNEAL

MILLER

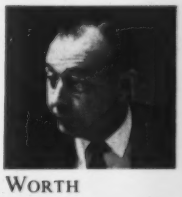
NELSON

NICHOLS

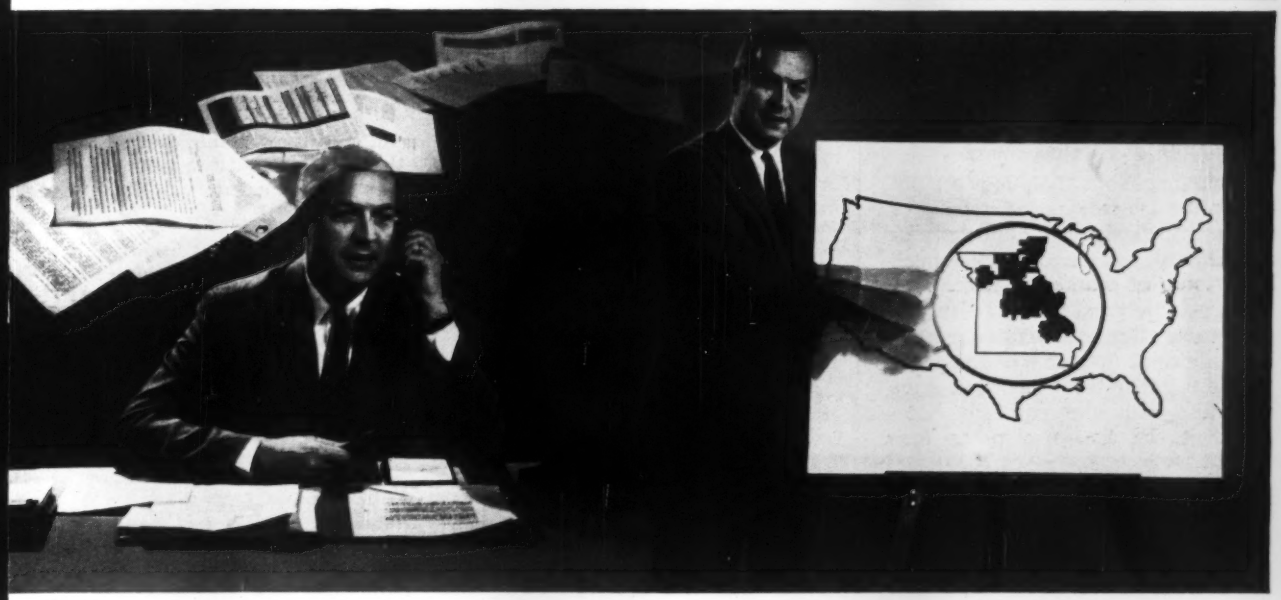
ROBERTS

RUTH

SIMON


WORTH

Reprints of this Special Report, "Upgrading Industry's Plant," are available at 30 cents each from Reader's Service Department, DUN'S REVIEW & MODERN INDUSTRY, 99 Church Street, New York 8, N.Y. Please enclose remittance. Discounts on 100 or more quoted on request.



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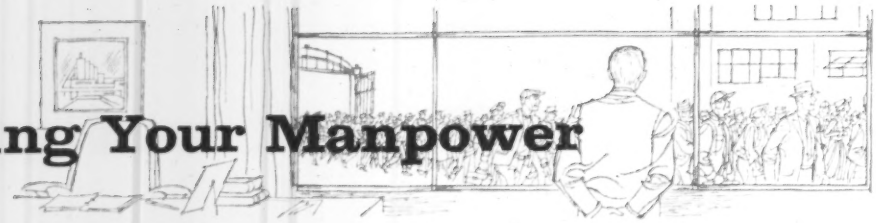
Managing Your Manpower



LAWRENCE STESSIN

» *Having trouble recruiting the right kind of people? Check your procedures—you may be scaring them off.*

» *From blue-collar hiring to executive recruitment, studies show industry frequently fumbles the ball.*

INDUSTRY'S hiring practices were recently put through a thorough check-up—and the patient came out with a bad report. The diagnosis was made by specialists in personnel recruiting who set out to see how management treats the job applicant. Their consensus is that slipshod procedures and plain bad manners are causing good talent to slip through costly recruiting nets.

"We've certainly changed our mind about *that* company," said one of a group of management hopefuls. They'd been sent to New York by the placement office of the Graduate School of Business Administration of Harvard University for a talk with an executive of a name corporation. The interviewer turned up three hours late—though he had phoned earlier to suggest that the young men "go to a movie" until he returned.

Driving the good ones away

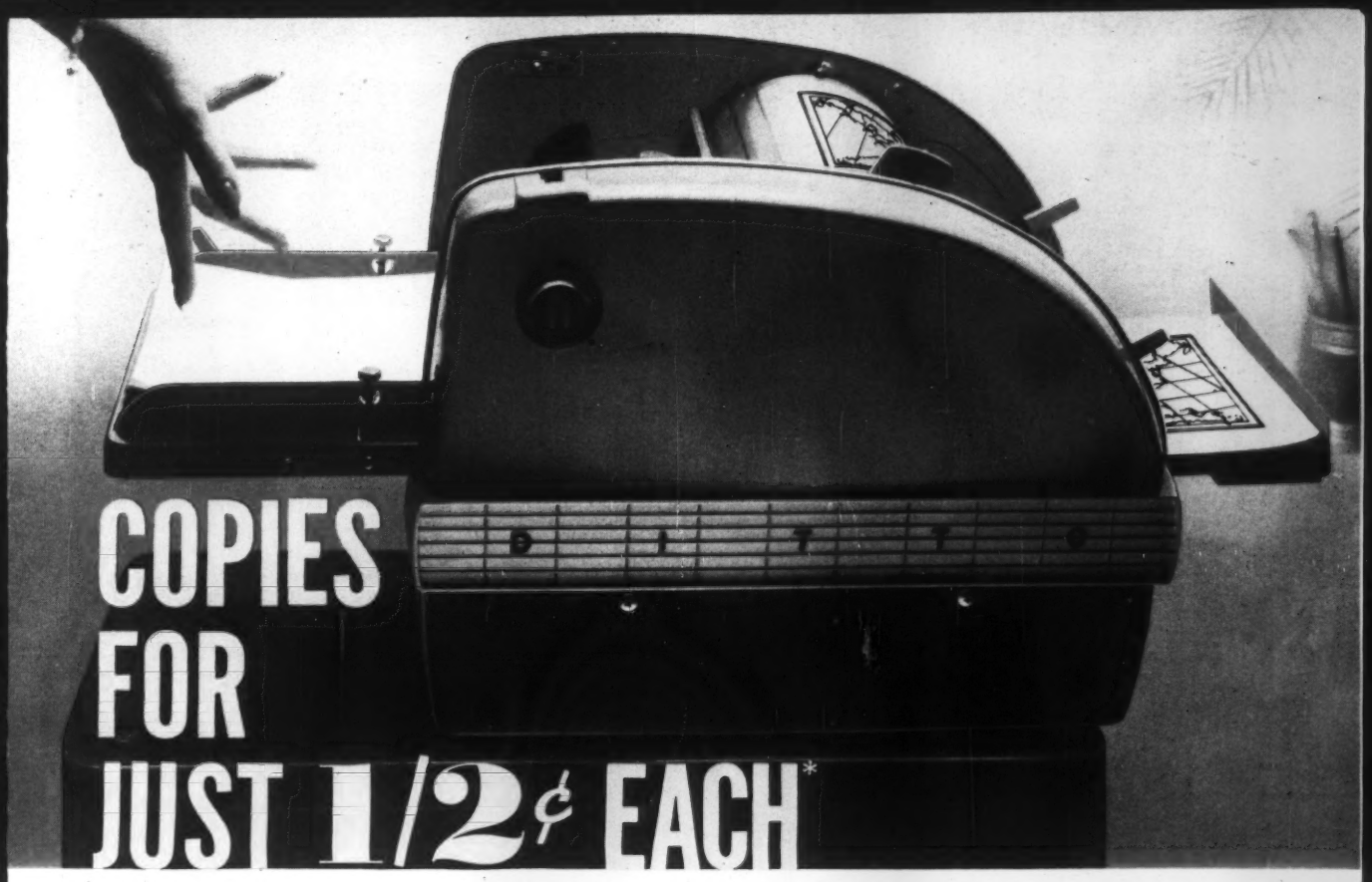
Such ungracious receptions are not rare in the job-seeking experiences of even seasoned, high-priced professional, technical, and executive personnel. A director of marketing relates: "I had a good job and wasn't actively in the market. But an executive recruiting outfit came up with something that looked better. When I came in for the interview with the company vice-president, he had five other men around him—including two management trainees who were there to learn how to interview people. I took one look at the mob and told the vice-president that I was not a circus performer."

Pre-interview techniques also draw criticism. A new research study of how management processes job applications from highly qualified people reveals why many companies fail to get their share of technicians and managers in the manpower market. Equity Advertising Agency, which

The Art of Executive Interviewing

"Every executive applicant should be approached as though he is a present or future customer or stockholder," advises Mansfield D. Sprague, vice-president for public and industrial relations of American Machine and Foundry Company. Sprague outlines these "do's and don'ts" of executive interviewing:

- √ **Have a well-appointed waiting room with comfortable chairs, good lighting, and a variety of interesting, up-to-date reading matter that reflects a good picture of your company and its products.**
- √ **At the start of the interview, establish an informal atmosphere. Have your secretary keep phone calls and interruptions to a minimum. Accept only those calls that demand immediate attention.**
- √ **Make the interview a give-and-take session. Don't bore the applicant with a lot of talk about the company that he probably knows already.**
- √ **Don't make the applicant feel that the interview is being hurried. When it ends, he should feel that he has been able to tell his whole story.**
- √ **Avoid poking into the man's private life. If you feel he is weak on some point, use outside investigation rather than asking him searching questions about his marital status, drinking, and other habits.**
- √ **At the conclusion of the interview, let the applicant know what the next step will be—whether you are going to arrange for other interviews, see other applicants, or when you will notify him. If you later decide he's not the right man for your company, don't use a form letter of rejection. Be as honest as you can about why you are not hiring him.**



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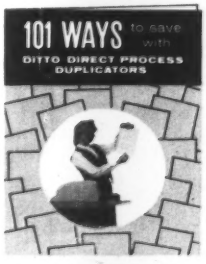

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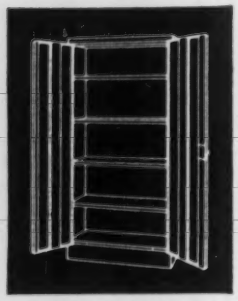
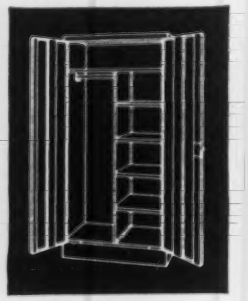
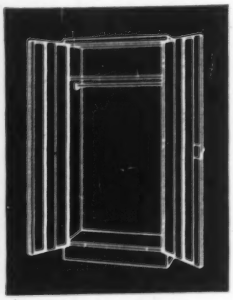


Supply

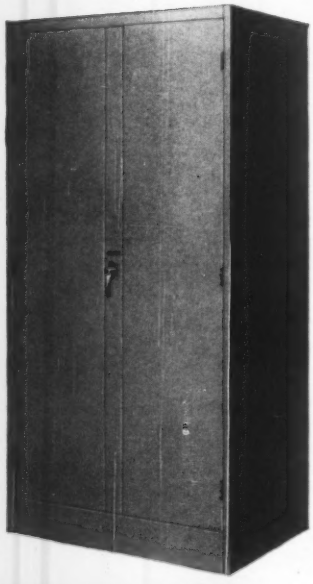


Combination



Wardrobe

the inexpensive cabinets with that expensive look



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handles the recruiting advertising of some of the nation's top companies, drew up a résumé of an imaginary engineer with a clutch of dream qualifications.

"We then selected 100 companies which had a continuous program of recruiting in newspapers, magazines, and technical journals," says Sherman Boxer, executive vice-president of Equity. "We mailed them the résumé of our fictitious job applicant and then waited for responses. The returns were eye-openers, to say the least."

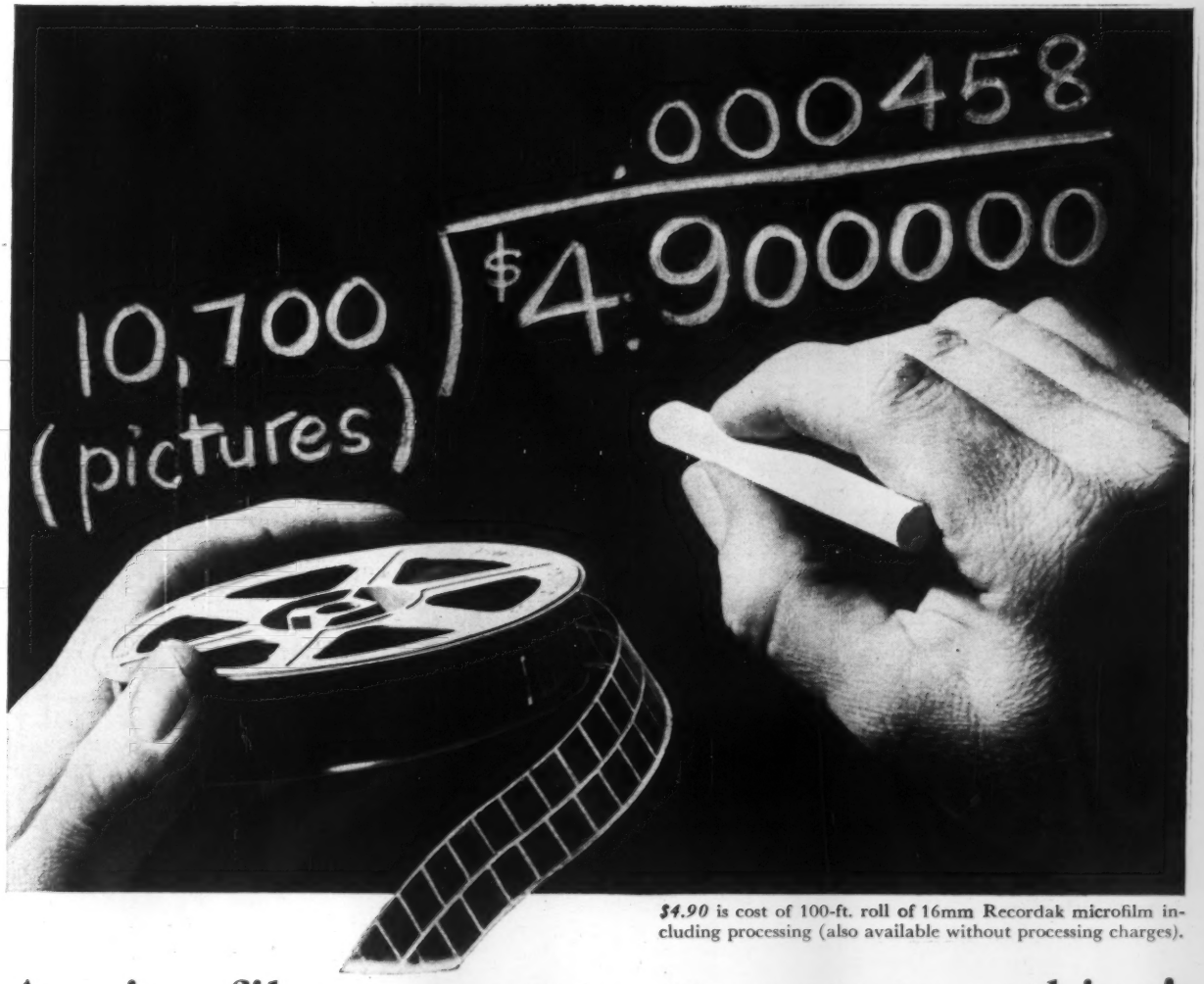
What did the survey show?

- Despite the critical shortage of experienced engineers, most companies took their own good time about answering. More than half of the replies arrived over ten days after the companies had received the application. Several came a month or more after the applicant showed an active interest in the companies' expensive recruitment ads.
- For the most part, the replies were cold, impersonal, standardized, replete with misspellings, poor typing, and clichés. One response came on a multigraphed post card. "Only one company," notes Boxer, "excused itself for using a form letter, saying it was doing so in the interest of expediency."
- Most of the companies seemed unaware of the simple fact that professionals and executives want to deal with someone on a level equal to or greater than their own. Answers came from "juniors," and in ten cases secretaries signed the replies for their superiors.
- A suspicion that the hiring process had become "over-paperfied" was borne out by the mountain of forms to be filled out that came with the replies. In addition to elaborate four-page application forms, companies asked the job-hunter to complete preliminary clearance forms, college transcript release forms, statements of non-affiliation with certain organizations, and forms for information to be provided by former employers.

The personal touch

The survey indicated that smaller organizations tend to do a better job of handling initial applications than the larger corporations. Not only did they write sooner, but they enclosed fewer forms and on the whole their answers were decidedly more personal and friendly.

The hiring practices for time-card



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Savings of 25% to 30% have been realized by switching from bags and returnable wood pallet boxes to non-returnable Wirebounds at Wagner Castings Co., Decatur, Ill.

The time required to fill and tie bags, and the cost of returning wood pallet boxes have been eliminated. Even with their 1400-pound loads, these Wirebound pallet boxes stack safely three and four high on the shipping dock, conserving valuable space and speeding shipping operations.

Wagner's customers realize savings, too: handling is minimized—there are no bags to open, no boxes to return. Contents of the Wirebound pallet boxes are accessible for quick identification and for receiving inspection.

At Wagner, Wirebound pallet boxes loaded with malleable iron castings weigh in at about 1400 lbs.

You can realize similar savings by using Wirebound pallet boxes in your manufacturing, assembly and shipping operations. *Contact Wirebound box manufacturers for full information or write to the address below.*

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MANUFACTURERS ASSOCIATION INC.
222 W. Adams Street, Room 1457
Chicago 6, Illinois

1094

employees show up little better in another study made by Dr. F. K. Berrien of Rutgers University. Dr. Berrien sent a group of students to look for rank-and-file openings. In general, they reported that personnel departments had a "standoffish" atmosphere, and that most employment offices—still "around the corner at the side gate" were pretty dismal places. In the hiring office of one department store, applicants had to fill out their forms standing up at a large wooden shelf where pens and pencils are chained to the inkstands.

The Berrien study points out that the interviews violated many of the cardinal principles of good hiring procedure. In most cases, the interviewer did most of the talking, repeating information that the applicant already knew. The job-seeker was given very little opportunity—less than half the time—to tell about himself or ask questions. Many times, the interview seemed to be a sort of "cat and mouse" game, with the personnel assistant trying to trap the applicant into admitting some exaggeration.

On executive levels, the interview escapes some of this frigidity. A boss interested in hiring a five-figure man shows more warmth and friendliness than a salaried interviewer in an employment office. But not all bosses are skilled in the delicate art of handling high-priced potential. Commonest breach of interviewing etiquette, according to Rawle Deland, executive recruiter: asking a man why he wants to leave his job.

"Most executives are not actively in the job market," he says. "They are willing to listen to propositions—and when you finally coax them to look into an opening with another company, they bristle when someone springs a question that suggests they are actually 'looking around.' "

What's the Answer?

An increasingly popular feature in employee house organs is the "Question Box" in which management answers queries which the workers submit. Since this communications technique can boomerang when the company shies away from an inquiry that touches a sensitive corporate nerve, Koppers Inc., Pittsburgh, has laid down ground rules for handling it:

- If the question is of company-wide interest, the letters need not be signed.
- Answers which are confidential or

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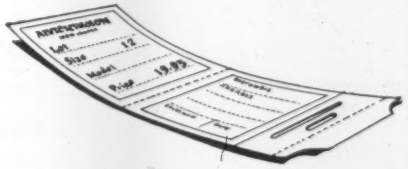

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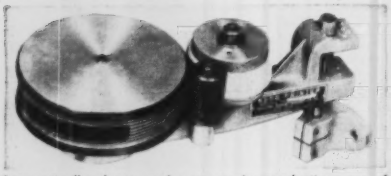

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of limited interest or application are given to the employee in a personal communication if he signs his name.

- The employee magazine will not answer questions about trade secrets, processes, or confidential financial information. The company feels that this material should be kept to itself because the employee paper goes to customers, competitors, and some outside organizations.
- Questions in poor taste or unseemly language will not be answered under any circumstances.

Vacation Variety

The year-round vacation schedule hasn't caught on as yet, but some companies are beginning to cotton to the idea.

One company which takes to the notion of having employees take their vacations off-season is Peter Eckrich and Sons—and it has come up with an inducement for employees to change their summer vacation habits. Workers who agree to take off between November 1 and April 1 get a bonus vacation day.

Painless Benefit

New tassels continue to appear on the fringe. Now, the American Dental Association has come out for company-sponsored dental insurance programs for employees.

Already the Kerr Manufacturing Company, Detroit, has adopted a plan which pays for up to $400 a year for dental care for employees and members of their families. The employee can pick his own dentist, and there are no fee schedules: Dentist submits bill and insurance company pays. The cost, borne by the company: 4 cents an hour per employee.

The Price of Success

The self-made man may be paying a steep price for his talent and initiative. The American Federation for Clinical Research asserts that the young man who left high school and made his way up the corporate ladder has more illnesses than the executive with a degree.

Also, the non-college men are fatter and have a ten times higher death risk than those who continued their schooling. They gulp their breakfasts, eat between-meal snacks, and smoke more heavily. END

Are your "dead storage" files more efficient than your active drafting files?

No doubt about it—it's important to keep correspondence carefully filed; *but* it is even more important to equip your drafting department with modern filing facilities that keep active and semi-active drawings readily accessible, fully protected—and in a minimum of space.

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Bruning's all-new Neoglide drafters literally help draftsmen straighten up and do faster, better work.* They provide complete maneuverability on any board at any angle without adjustment! Reinforced U-beam construction assures rigidity, strength, and accuracy. Resistance-free movement of vertical beam and hidden counterweight provide fast "floating" action. Touch-control protractor head gives automatic, pinpoint angle selection.

*Study of 300 draftsmen showed 35% savings in drawing time—1/5 the backaches—on vertical or near vertical boards.

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Put your product into a "class by itself" with this superior new liquid vegetable oil

Saff-O-Life* is a superb new liquid safflower oil that is finer, lighter, more delicate than you would believe possible! Remarkable safflower oil contains far less saturated fats yet 50% more polyunsaturated essential linoleates than any other liquid vegetable oil. Investigate its unique properties for use in *salad dressings, margarines, frozen desserts* and other food products. Saff-O-Life* emulsifies readily for use in mayonnaise. It also remains clear and brilliant when refrigerated for extra sales appeal as a salad oil. For more facts, write:

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Housewives and institutions alike find General Mills Seasoned MPF (Multi-Purpose Food) the answer to stretching food dollars. MPF is a golden, protein-rich granule of vegetable origin, scientifically blended with essential minerals and vitamins. It provides complete protein at low cost. New Seasoned MPF has a distinctive flavor that blends well with soups, salads, hot dishes and casseroles. An excellent fortifier-extender for meat loaf dishes too. For more facts, write:

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The current Panel report,

"What Business Wants from Kennedy"

appears on page 30

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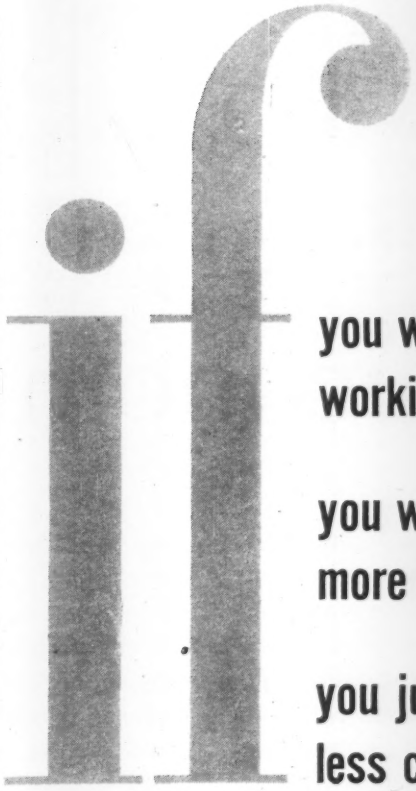

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Here's how Pontiac, the prestige fleet car, offers economy plus!

If you're a fleet car buyer looking *first* for economy . . . take a second look at the way the '61 Pontiac answers your first requirement.

Economy of operation was sort of a second slide rule that Pontiac engineers used when the '61 was still on the drawing boards. And they used it with hair-splitting accuracy and pretty surprising results.

Excess weight, for example, was trimmed to the point where every pound had to count toward the roadworthiness of a Pontiac. Not an ounce of "overweight" was allowed. (Though stretch-out roominess was increased and there's trunk space to spare.)

Reduced weight permitted another important reduction—in axle ratios. This is figured in percentage points that only engineers and car enthusiasts talk about. But those points actually put more working miles on a car while putting fewer working miles on an engine. And they assure you of more miles per gallon.

Pontiac's proven Trophy V-8 Engine also figured importantly in this new economy slide rule for fleet cars. The carburetion system was refined to give it new free-breathing characteristics. It uses more air, less gas.

And here's economy plus for fleet buyers: High trade-in value. For example, the Catalina 4-door sedan, according to National Marketing Reports, Inc., retains more of its original value than any other car in its class.

Economy minded? Then look beyond the less impressive cars when you're looking for fleet cars. See the '61 Pontiac and its great fleet newcomer, Tempest. Visit your Pontiac dealer. Or write Fleet Sales Department, Pontiac Motor Division, Pontiac 11, Michigan.

PONTIAC FLEET

International Markets

ALEXANDER O. STANLEY

- *"Machinery for Rent" signs go up overseas, posted by U.S. companies.*
- *ICA dollars are coming back home to aid American exporters.*

LEASING machinery to users abroad is a new gambit for U.S. companies trying to get entrée to foreign markets. Successfully employed for many years by manufacturers of shoemaking equipment, oil drilling rigs, and motion picture equipment, leasing, rather than selling, is a technique that is opening up new channels of income for other U.S. industries.

Overseas contracts are signed with equipment manufacturers or through special leasing companies abroad which buy the equipment, then rent it out. The contracts usually run for one to five years. Rental fees, paid by the year or the month, cover servicing, repairs, replacement of spare parts, financing, and insurance costs. Provision for replacement of "obsolete" equipment, particularly in industries that are undergoing rapid technological change, is usually specified in the contracts or covered by short-term leases.

Field tests and trial-runs

Why do U.S. companies switch to leasing in overseas markets? Here are the big advantages:

- Users abroad, operating from a narrow equity capital base, prefer to rent now, buy later, since commitments involve smaller immediate outlays.
- New or experimental machinery goes over better on a lease arrangement. The user gets a chance to make a trial run before making long-range commitments, and the U.S. company can field-test the new machinery under normal operating conditions.
- Leases expand the over-all market for advanced types of equipment and improved models, since users are not locked in on capital equipment if it becomes outdated. Of course, new outlets have to be found for the competitively "aged" machinery, but as it travels down the line, the customer base is broadened for both new and old equipment.
- Lease equipment on "display" generates additional leases in the same market, an important marketing asset unless whole-market exclusivity is one of the lease clauses.
- Maintenance of overseas servicing facilities, usually required under leasing arrangements, encourages periodic service inspection, reducing customer complaints and building up good will. As a by-product, the servicing unit overseas sometimes discovers new applications for existing equipment and reports technological developments of competitive value.
- Lease revenue ordinarily follows a more consistent pattern than the variable curves that show up on direct sales charts. Profit margins are easier to project and to control, at least in countries that can be classified as safe "credit" risks, with adequate currencies and favorable trade and political climates.

But there are drawbacks to consider:

Currency devaluation, expropriation, or other "political" risks, for example, can affect the dollar value of the lease. Countries with exchange troubles may set currency controls impounding lease income. Even if the contract calls for dollar payment, local inflation can throw servicing costs out of alignment and affect profit margins. If duties are upped or controls tightened, both the landed costs of replacement parts and contract performance are affected, unless covered by escalator and escape clauses. Some relief is possible through risk coverage bought through the Exim Bank.

For the manufacturer, leasing operations involve heavy capital and credit commitments. In addition, the earnings/investment ratio is at first thin and the risk sizable until a broad income base is established. But though leasing still has to go through its own test-run before it's completely proved out, any company on the hunt for new customers will find it worth a close look.

Stay-at-Home Dollars

The International Cooperation Administration's new procurement program calls for a massive shift in spending policy. Most of its dollars for foreign aid projects will now be spent at home instead of abroad, gen-

ASK THE MAN WHO USES NORDSON AIRLESS

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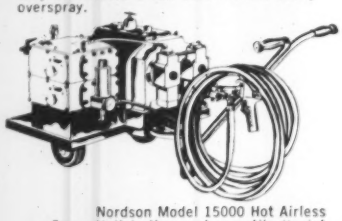
"Good finishing is as important on our corn pickers and manure spreaders as it is on household items, but finishing costs were getting out of hand. To improve efficiency we installed Nordson Hot Airless Spray Systems on two of our production lines. Paint savings alone the first year totaled over $16,000. On our picker line the new system cut spraying time more than 30%.

We reduced housekeeping costs too, for we were able to reassign two men from cleanup operations. In addition to these savings, the finish of our products has been noticeably improved."

That is what Ralph Mueller, Plant Engineer of Avco Corporation's New Idea Division, Coldwater, Ohio has to say about Nordson equipment. If you spray varnishes, paints, adhesives or other industrial coatings, it will pay you to find out how the Nordson System can provide savings and improve quality for you. For full information write Nordson Corporation, 29 Jackson Street, Amherst, Ohio.

New Idea corn pickers have many hard-to-reach angles. With Nordson equipment they all receive a full coat without costly overspray.



Nordson Model 15000 Hot Airless Spray Unit is the most versatile "paint shop" developed for American industry.

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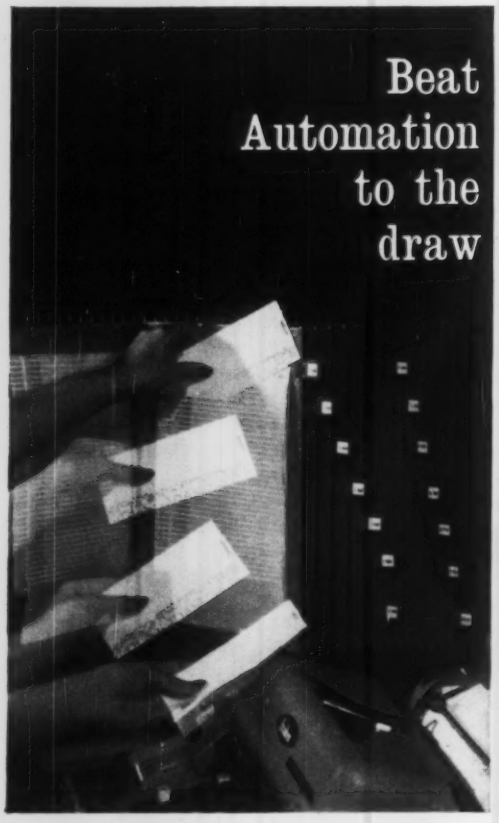

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erating new opportunities for U.S. exporters to boost sales.

The stake is a big one. Only 42 per cent of the $867 million total ICA procurements in fiscal 1960 was spent in the U.S. Offshore procurements ran slightly over the $500 million level, with $1.5 of every $3 going to European suppliers, another $1 to Far Eastern dealers, and the rest spread among Latin American and other sources.

Industrial raw materials make up just under half of all ICA-financed commodity purchases. But machinery, equipment, and iron and steel products offer U.S. companies the largest potential for sales expansion.

Not all the $500 million potential will wind up on U.S. company invoices. There will be some exceptions to permit offshore purchases of replacements and spare parts for foreign-label equipment now in use. It's difficult to measure the actual potential, ICA officials say, but they still predict that the new policy will benefit U.S. exporters substantially—and will, of course, save dollars.

They also caution, though, that to get the sales, exporters will have to make a close study of marketing conditions and needs in individual ICA-aided countries and assess marketing opportunities realistically.

Where the sales are

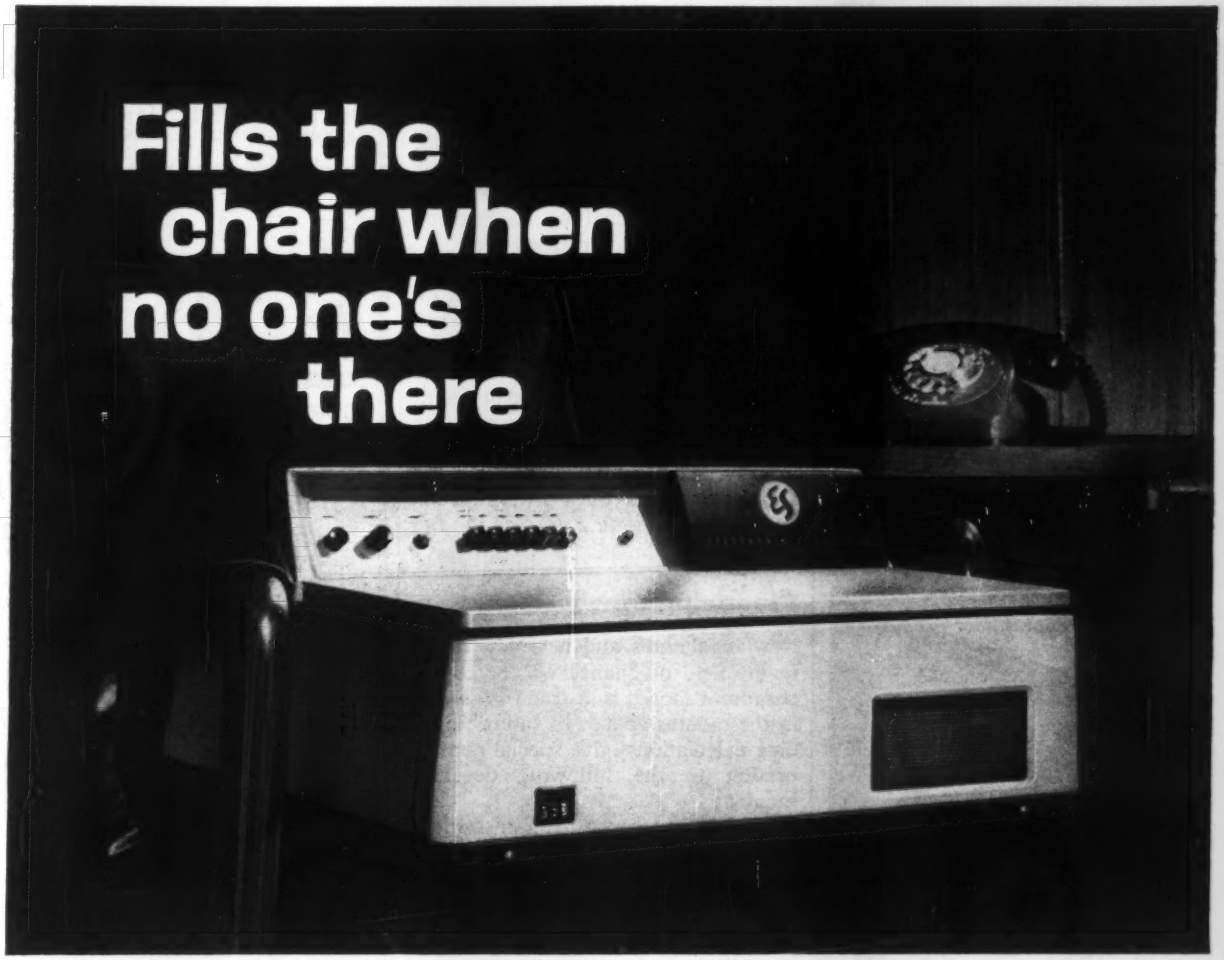
Here is a rundown of the most promising areas open to sales expansion and the amount of ICA aid they get (in millions of dollars):

The Far East, especially Korea—$196; Viet Nam—$167; Pakistan—$92; Taiwan—$60; Thailand—$25; Cambodia—$19; India—$16; Philippines—$11.

Other major ICA purchasing areas are Turkey—$61; Greece—$15; the United Arab Republic—$10; Morocco—$22; Spain—$32; Germany (Berlin)—$23, and as a bloc, Latin America—$8.

Although ICA-financed goods go largely to underdeveloped countries, each of these is at a different stage of economic development. The more advanced countries have more sophisticated needs and shop mostly for machinery, equipment, and supply requirements. The others have assorted needs in raw or semi-finished commodities, varying market by market. You have to research the ICA projects carefully to fix the potential.

Hit by the new procurement order



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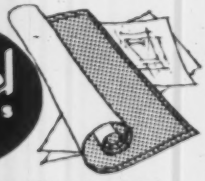

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are Australia, Austria, Belgium, Canada, Denmark, France, Germany, Italy, Japan, Luxembourg, Monaco, Netherlands, New Zealand, Norway, South Africa, Sweden, Switzerland, the United Kingdom, and Hong Kong —until now big offshore suppliers of ICA needs. But the blow will be somewhat cushioned by an "exceptions for compelling reasons" rule.

Changes in other ICA functions are also under way. Cash grants or loans, as well as funds programmed for technical support, will be used so as to channel purchases more to the U.S. The Development Loan Fund has also been ordered to pursue the 1959 "Buy American" plan more vigorously. Ceilings are to be put on DLF operations that bypass goods and services procurements in the U.S.

Financing for the Future

New regulations and new departures in the field of finance will be easing corporate money and trade problems in the months ahead. In future financing calculations, give special consideration to the following developments:

- The Eisenhower Administration, clamping down on American ownership abroad of gold coins, certificates, and kilobars, set a June 1 deadline for citizens and companies to rid themselves of gold holdings.

The order to sell may have an indirect effect even on companies that have no gold holdings at all. Overseas branches of U.S. banks may have to cash in their bullion. If converted into the Euro-dollar (see DR&MI, January 1961, page 74) or other currencies, this could make more funds available to underwrite the local financing needs of U.S. business overseas.

- On its own initiative, Italy has joined in the dollar defense. It has taken off restrictions on all but about 3 per cent of U.S. imports, instructed Italian banks to repay some $400 million in foreign debts and deposits, much of it to U.S. banks, and upped the dollar allowance for U.S.-bound Italian tourists. Meanwhile, the government has kept the discount rate at a low 3.5 per cent and has refused to make gold purchases through the Bank of Italy.
- Spain has given up a $71 million line of credit opened up almost two years ago with a syndicate of U.S.

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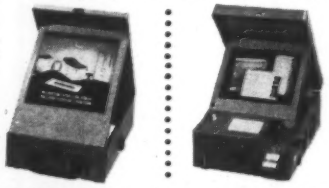

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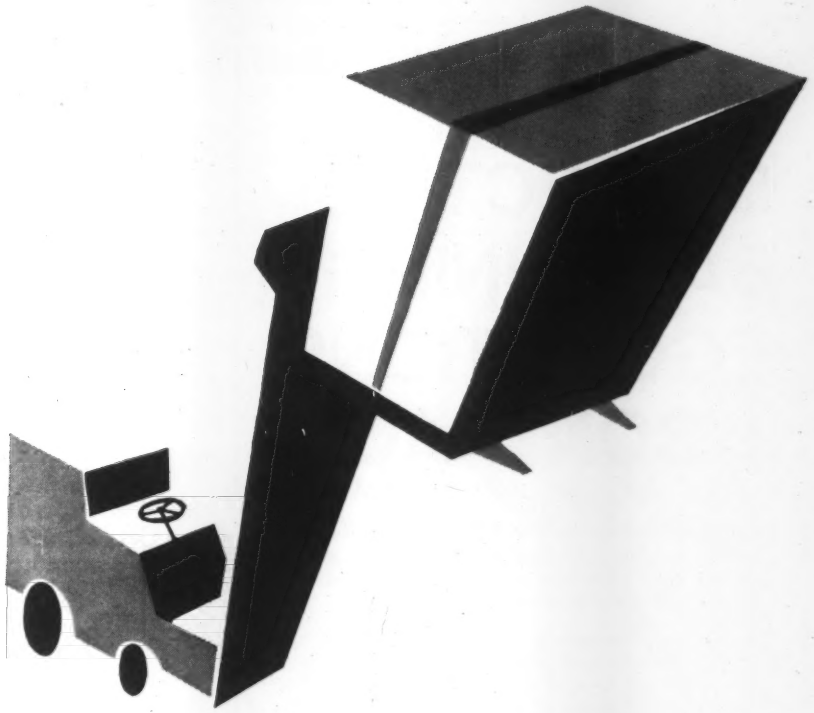

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banks. It never had to draw a cent of the credit. Business has been good, the peseta has stabilized, prices have steadied, and gold and dollar reserves have bounced back from near zero to a thumping $500 million. Here's a country to put on your marketing research agenda for 1961.

• The EEC has been chopping another 10 per cent off intra-Common Market tariffs on industrial goods, bringing the total to 30 per cent. "Outsiders" will benefit by a 20 per cent tariff cut on most industrial goods. Also, the EEC will permit the new European Investment Bank to underwrite both internal and external loans.

Something new in bond flotations on the European scene was a $10 million issue offered by an important Portuguese refinery which is accepting investments in five different currencies.

The bonds' denominations are in a new "international unit of account" (call it U/A for short), which is gold-based and set up in $1 units calculated at $35 to the ounce.

Investors may pay for the bonds in pounds sterling, French, Belgian, or Swiss francs, Dutch guilders or German Deutschmarks. They can turn in their interest-coupons for any one of seventeen European currencies. Should all seventeen pay-out currencies be devalued in equal proportion, the U/A will be, too. If all are depreciated in varying proportions, the least affected currency will set the value of the U/A. If some change and others do not, the U/A remains unaffected. Investors can take their interest in the strongest currency. The currency-exchange risk is pinned to the borrowing company.

With this unique "escalator" bond European companies can break through the capital barrier and tap the local capital markets with greater ease. More than that, it underlines the growing confidence in the stability of most West European currencies—and hints at the prospect of an eventual EEC common currency.

Switch to the Rand

For the past several weeks South Africa has been switching from pounds, shillings, and pence to the "rand," a new decimal coinage system. There are 100 cents to the rand, which will be worth about $1.40 U.S., half the value of the former South African pound. END

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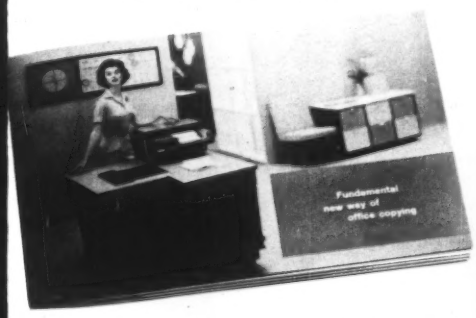

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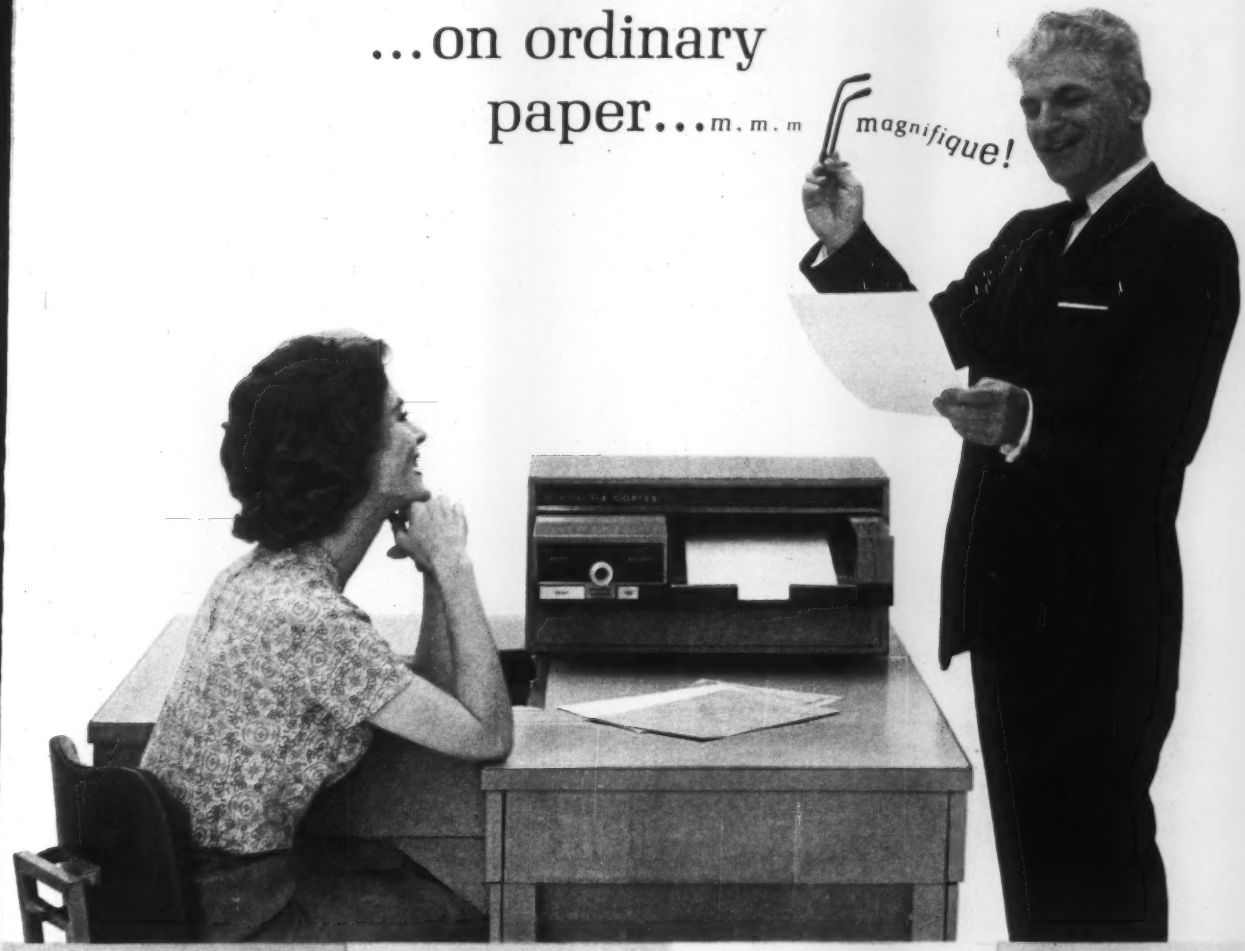

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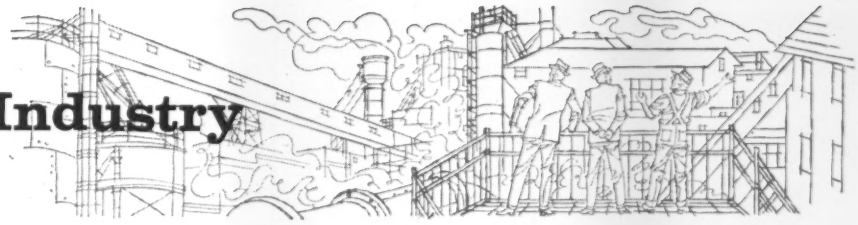
Inside Industry



- *How to beam a million messages*
- *Computer breaks a plant bottleneck*

The American Telephone & Telegraph Company has a new technical card up its sleeve in its battle to keep its leased-line customers from setting up their own microwave communication systems. The new device is called an optical maser. ATT's prototype is said to be the first of this invaluable new breed of light amplifier that works continuously—all the others operate only in spurts.

If and when the new device goes into commercial production, it will enable ATT to transmit many more messages simultaneously than over its present microwave systems. That should enable the Bell System to cut its charges for leased lines, a strong inducement to its customers not to set up their own private communication systems—at least until they can buy equipment with the new masers.

The Federal Communications Commission has still not approved the private carrier systems. ATT and the other common carriers have talked the FCC into postponing the decision over and over again—most recently, from January to March of this year. However, word from within the FCC has it that the decision is likely to go against ATT.

The new maser generates an extremely narrow light beam in the infrared light region. The half-inch beam is focused so sharply that it only spreads to a foot in width over 100 miles. This means that with a small antenna—actually a telescope—something over a million conversations could be transmitted over the beam once it's perfected, against the 11,000 microwave systems carry now.

The new maser, which is designed around what looks like an ordinary neon light tube, was invented by Dr. Ali Javan, an Iranian-born physicist.

Model of a Bottleneck

Some months ago a General Electric transformer plant was infected with a severe case of bottleneckitis: One shop just couldn't keep up with the others.

One suggestion was to add more men and equipment. Instead, some mathematicians were called in to figure out a new way of arranging the existing machinery.

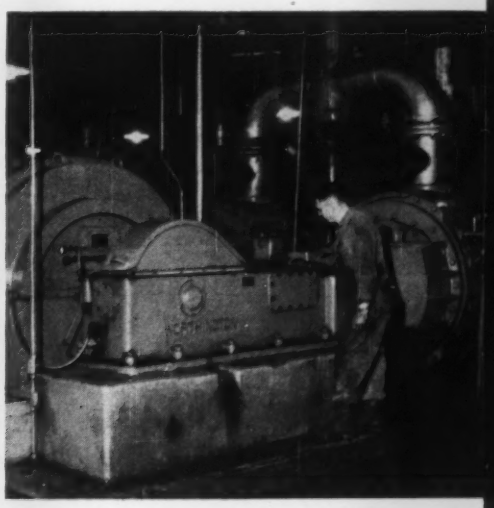
Using so-called simulation techniques, they constructed a mathematical "model" of the shop, then coded it into a six-inch stack of punched cards.

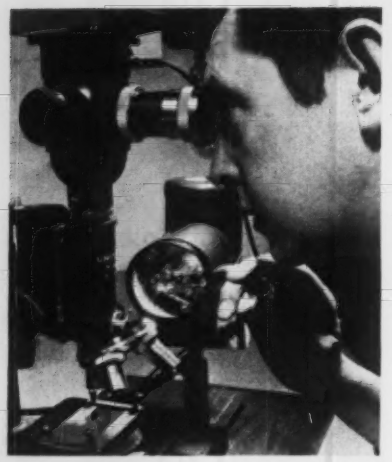
The first time they tried to run the cards through a small computer in the plant, they stayed up for 48 hours

---

Technology Aids Coal Handling

New advances in materials and methods are improving the handling of coal, which is having a comeback as a cheap power source in the Midwest. In the left-hand photo, workmen install a polyethylene chute at a mine in Jeddo, Pa. The plastic is also being tested as a liner for storage bins and trucks and for the buckets on conveyor belts. At right, a conventional Worthington pump is doing a highly unconventional job. It is one of a series of vacuum pumps that sucks coal-powdered anthracite mixed with water into a slurry—through a 108-mile pipeline from the coal fields of southern Ohio to Cleveland, where it is dried out and compressed into briquettes for industrial use.





CLOSE-UP: *Micro-photography is the only way that Minneapolis-Honeywell researchers can measure the thickness of magnetic thin films. The films, which are used in computer "memories," are less than 40 billionths of an inch thick.*

at a stretch without getting an answer. So they went back to their slide rules, made some adjustments in their figures, and returned to the computer.

This time the answer came out in short order: Instead of more expensive production machinery, the computer indicated that more "in-process" storage capacity was needed between the machines. The plant manager ordered some comparatively low-cost overhead conveyors. Not only was plant capacity increased but the manufacturing cycle was reduced from nineteen to five days.

The cost? $25,000, a real bargain in G.E.'s eyes.

So far, computer simulation of factory operations is in its infancy. Richard S. Clement, a specialist in business planning for GE, foresees the day when companies will have entire "libraries" of plant simulation models. Any time a plant manager wanted to make a change in the plant process, he could order the appropriate stack of punched cards fed into a computer, along with data on the specific operation. Depending on the size of the computer and the complexity of the plant, the computer would come up with the correct answer in minutes or hours.

Tools Beat the Heat

A Cornell University professor has found a way of increasing cutting-tool life from five to 100 times. For years, manufacturers have benefited from the contest between machine tool builders and the specialists who design cutting tools. Bigger machine tools and numerical control have put the former ahead in this friendly battle. Now perhaps that will change.

Using carbide cutting tools in turning tests at the laboratories of the Cincinnati Milling Machine Company, Dr. William Pentland found that tool life was steadily extended as the temperature of the work piece was raised. Reason: the hot metal cuts more readily. The most spectacular increase obtained in turning occurred when one hard metal was raised from room temperature to 800° F. The cemented oxide tool lasted 40 times as long!

In face milling at 1,000° F, the life of tools in a range of metals was twenty to 100 times longer than at room temperature. Surface finish was as good or better, though some surface oxidation occurred. There are no excessive hazards in hot machining, because the heat is confined to the point of cutting.

European experimenters are attempting to achieve the same results by taking the opposite tack—chilling and thereby hardening the cutting tool. Reasoning that overheating—of the tool, not the workpiece—is the major cause of tool breakage, they are machining at temperatures below −200° F, with good results. Obviously, both hot and cold machining have their possibilities, though which is better may depend on the metal to be cut. In any case, it looks as if business men can count on getting more out of their enormous investment in machine tools.

Clockwatchers at Work

Workers at one British factory are encouraged to watch the clock. Why? Because the specially designed timepieces indicate bonus earnings. At the beginning of the shift, the time allowed for the job is dialed into a clock on each machine tool. Every time the worker finishes a piece, he steps on a foot switch. The clock then keeps a running total of incentive earnings. A green light on the clock tells the machinist at a glance if he is ahead of standard; a red light goes on if he is behind.

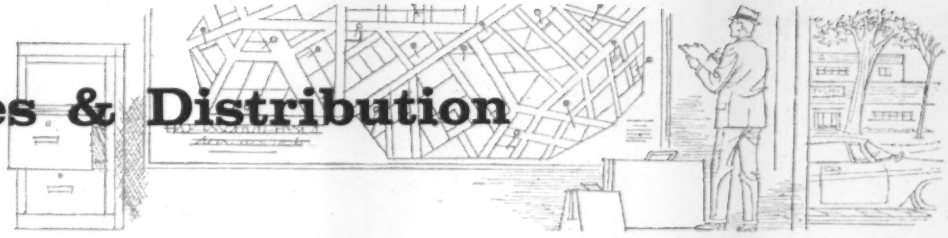
There is little danger of the clocks' being wrong. They are simple, sturdy devices that run on standard alternating current. And the system cuts paperwork as well as stimulating production.

Buying Abroad

A 56-page booklet on the problems of buying abroad is now available from the Industrial Education Institute, 221 Columbus Avenue, Boston 16, Mass. The $6 booklet, which includes valuable lists of foreign purchasing agents' associations, is based on a series of lectures given in this country by John R. Blinch, director of the Purchasing Officers Association of Great Britain. —M. M.

HEART OF THE MASER: *The key element in Bell Telephone Lab's new optical maser (see story on previous page) is a 40-inch tube filled with helium and neon.*

Sales & Distribution



The housewife's delight becomes a spur for salesmen and dealers, as industrial producers boost sales with trading stamps.

Do trading stamps—long the housewife's treasure trove—have a place in industrial and commercial selling and in wholesaling? The answer is not yet in, but during recent months, many companies have begun to put the stamps to use for non-consumer purposes. It is even possible they may some day be almost as common a sales incentive as the special bonus. Manufacturers are already using trading stamps in their marketing programs to stimulate their own salesmen, to spur customers to more buying, and to improve relations with distributors and dealers.

Dahlberg, Inc., Minneapolis, a subsidiary of Motorola, Inc., attributes a large part of its 128 per cent sales increase in the last six months of 1960 to the use of trading stamps. They provide a solid incentive for its sales force, which markets communications equipment to hospitals and other institutions.

The salesman's stimulant

It's illegal to give trading stamps with consumer purchases of liquor, but quite aboveboard, liquor distributors in California and St. Louis, Mo., have found, to use them as salesmen's incentives. The truck division of the Ford Motor Company is now conducting a special promotion, giving books of stamps as a bonus to salesmen for every two trucks sold.

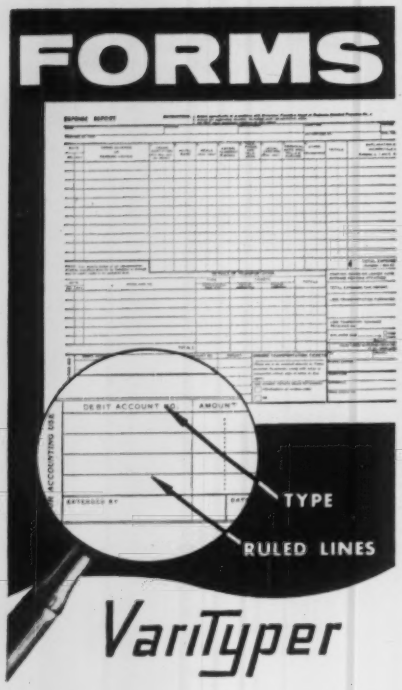
Companies that employ stamps to stimulate salesmen account for their pulling power in various ways. Among the 40 million households that regularly save stamps, wives are the family members most concerned with collecting and redeeming them, so trading stamps have a bonus value as a sales incentive. According to those who have used the plans, a salesman who can announce to his wife that he picked up 100,000 stamps in the company sales contest may impress her more than one who won merchandise worth $250 (the equivalent value). Also, there is usually a wide choice of merchandise in stamp catalogs.

Companies are also turning increasingly to trading stamps to spur orders from distributors and dealers. Hamilton-Cosco, Inc., a Columbus, Ind., manufacturer of office equipment, recently assigned stamp values ranging from 100 to 450 for each office chair model as an added inducement to dealers' salesmen. Swingway Manufacturing Company, N.Y., issues stamps to distributors who order wall can-openers during its special campaign. The Ford Motor Company truck division is testing a program to give stamps to distributors in the Minneapolis area. Walco Electronics, Inc., East Orange, N.J., is promoting hi-fi to retail dealers by offering stamp bonuses with particular models.

In one of the most unusual approaches, a Minneapolis distributor of built-in kitchen equipment is planning to offer stamps to construction contractors. A St. Louis wholesaler of equipment for beauty shops now gives stamps to move special products and encourage prompt payment of bills. Cotton buyers and ginners in Texas are using trading stamps to lure farmers into doing business with them. Trading stamps are also being used by a Midwest steel warehousing company.

Several years ago, a macabre cartoon in a national magazine showed the facade of an undertaker's estab-

OUT OF THE SUPERMARKET *and into the sales office come the trading stamps. Here, Wellington Vandeveer, president of Circo Corp., presents a batch to a customer.*



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THEIR GOOD FORTUNE *spread out for all to see, Mr. and Mrs. Harold E. Farley, Memphis, Tenn., celebrate the 75th million circuit breaker produced by Federal Pacific Electric Co. The company installed it in place of the first one put in a decade ago, gave the Farleys an electric range, 2-HP air-conditioner, hi-fi set, a rewiring job, and ten shares of stock.*

lishment with this sign: "We give Green Stamps." Although no such inducement has yet appeared, today a major supplier of mortuary products actually offers trading stamps to morticians who use his products!

In one of the freshest shifts in marketing methods, Circo Corp. of Clark, N.J., manufacturer of industrial equipment and chemicals, recently began giving trading stamps to purchasers of its degreasing solvent. Like many industrial companies, Circo markets a product that doesn't differ markedly in price or quality from competitors'. Says President Wellington Vandeveer, "After all, there is nothing particularly exciting about a degreasing solvent. Perhaps some of our competitors will call the stamp plan an outright gift or even a kickback. Actually it's neither. But it *is* a more dramatic method of offering a standard business discount while stimulating sales."

Bonanza for the prompt

The stamps are given to customers who pay their bills within ten days of the invoice date. Each purchaser of a drum of solvent receives 1,000 stamps. A tank-carload brings 60,000. This is the first time that Sperry & Hutchinson Company, the largest trading stamp company, has made stamps available for non-retail use.

Judging by initial interest in the stamps, the company expects an improvement in collections, which have been running an average of 42 days. It also hopes for a sales boost of about 35 per cent as a result of the stamp plan, which will cost about 2.5 per cent of sales. Customer loyalty and goodwill should be by-products of the campaign, Vandeveer believes, since a small-plant owner will be reminded of Circo by the hi-fi set, appliances, and other stamp-acquired merchandise in his home. Industrial equipment will also be available.

The industrial stamp plans are most appealing to customer companies which are small as well as family-owned and operated. Not only is there no problem about accepting the stamps—a possible sore point in large company purchasing departments—but the appeal to the proprietor's wife is an added spur. Circo admits that the stamps could create problems in large recipient companies, since they may adhere to employees' sticky fingers. He stresses the importance of alerting top management to prevent the stamps being misconstrued as personal payola. Usually they are sent to the accounting department.

As good as gold

Some companies are collecting the stamps to get sporting goods for employee activities or general merchandise for use as business gifts. Companies which use the stamps as a sales incentive sometimes collect the ones they receive and later hand them out in their own contests.

In addition, some companies are using stamps as charity donations, since churches, civic groups, and others encourage individual members to pool the stamps they receive at supermarket checkout counters. These groups sometimes canvass the community to seek donations of trading stamps and a company that has piled up a lot of stamps can give, when it is urgently needed (to meet the stamp price of a new ambulance, for instance), something even better than cash. Incidentally, the value of stamps given to charity is income-tax deductible. —T. K.

How Inco helps promote the popularity of stainless steel products

More and more, people buy appliances, tableware and housewares made of *stainless steel.* One reason for this growing popularity is effective marketing and promotion over the years by steel producers, product manufacturers and (because quality stainless steel contains Nickel) Inco.

An example of these efforts is the *Gleam of Stainless Steel* promotion. This program helps participating stores set up special Stainless Steel Shops and supports them with advertising, sales promotions and display material. Now in its third successful year, it is an example of how Inco helps to further the growing trend toward products made of Nickel stainless steel.

Inco cooperates with producers of stainless steel and manufacturers of products in other ways, too—making available from Inco Research the latest technical information on metal alloys and their uses.

In housewares and in countless other applications quality Nickel stainless steel adds beauty, durability and *saleability* to products. What about *your* product? Could quality Nickel stainless steel make it better—and better selling?

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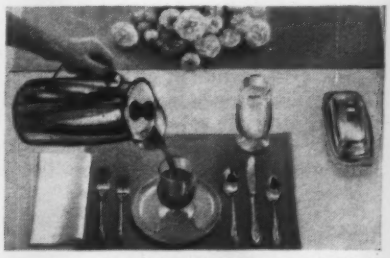
Nickel stainless steel is used for cooking, serving and storing because heat and cold can't harm it



The beautiful, durable gleam of Nickel stainless steel makes it popular for housewares and other products

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Capital Views & Previews

PAUL WOOTON

The new Senate Majority Leader calls for reorganization of Government agencies dealing with foreign affairs.

WHEN Michael J. Mansfield became Senate Majority Leader this January, there was a good deal of doubt that a man of his philosophical turn of mind could exercise leadership in a group so given to expediency and political maneuvering. He was overridden at the start when he opposed discussion of a change in the Senate's rule on limitation of debate. Two weeks and many speeches later, it was apparent that Mansfield had been right—and that he'd scored victory No. 1.

It's true, his friends say, that Mansfield is a thinker. But, they add, he is a nimble thinker. Having quit school at the age of 14 to join the Navy in World War I, he later finished his education and became a professor of history and political science at Montana State University—after a varied career as Army private, Marine Corps PFC, miner, and mining engineer. Elected to the House in 1942, the Montanan was sent to China by President Roosevelt in 1944. (His opponents are fond of remembering that his report described the Chinese Communists as "more agrarian reformers than revolutionaries," seldom recall his praise of Chiang-Kai-Shek.)

Mansfield turned down the post of Assistant Secretary of State for Public Affairs under President Truman because he wanted to continue representing Montana. In 1952, his equally loyal constituents sent him to the Senate, where he has become widely known as a Democratic spokesman on foreign affairs.

"Foreign relations are not the products of alchemy," Mansfield notes. "They are the consequence of human acts. It is now a question of whether the world is to spin as a dead planet in swift silence through endless time, or whether the brief human experience of freedom on earth shall be carried to the stars."

"American business men cannot divorce themselves from the international situation and the struggle for survival."

—SEN. MICHAEL J. MANSFIELD

According to the new Majority Leader, the U.S. needs a new approach in foreign relations. His own suggestion is that all Government agencies with international functions be incorporated into the Department of State, with the functions of the Central Intelligence Agency absorbed by State and the Defense Department. The National Security Council, he adds, should also be dissolved and its functions transferred to the regular Cabinet de-

This is the final column written for DUN'S REVIEW by Paul Wooton. On February 14, Mr. Wooton, 79, died of a heart attack on his way to a Congressional hearing. A Capital correspondent since 1914, he had known six Presidents personally. He had written for this magazine since 1951.

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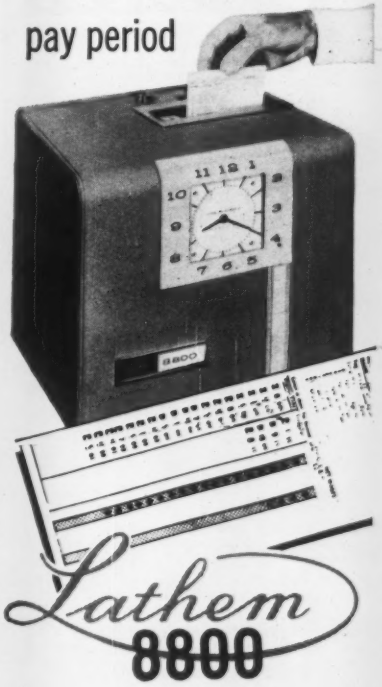

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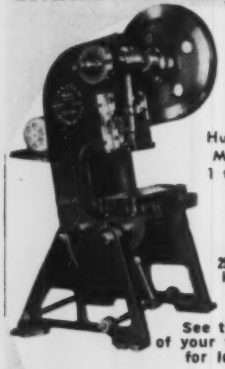

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partments. But when it comes to policies, he believes that other agencies besides State should have a voice.

The Senator from Montana regards Berlin as the crucial problem of 1961. "That's where the crisis is coming. Existing conditions in Germany do not favor an equitable and rational peace. They are the patchwork timbering of an improvised truce. We need a change in German policy which conforms to the realities of present-day conditions."

What Mansfield advocates is the neutralization of both Soviet and Western zones on an interim basis, with the UN controlling and policing the entire city and routes of access —and with the two Germanies paying the costs.

Continuing, he says: "If negotiations between us and the Russians are honest, they need not end in failure, no matter how hard the bargaining. There still is hope for agreements which promise some measure of stability for all mankind." The Senator doubts that 100-percent foolproof disarmament inspection is possible. Some risks, he thinks, must be taken.

Former Secretary of State Christian Herter has been criticized severely by some Democrats, but however loyal Mansfield may be to his party at other times, he is a maverick when it comes to this. "Herter performed magnificently as Secretary of State," says the Senate Majority Leader. "He was realistic, and he never tried to fool the people."

Trouble to the south

The Kennedy Administration plans a major program for improving our relations with Latin America and the man who will be charged with shepherding any of its legislative proposals through the Senate foresees "the kind of action which will inspire the American republics to a rededication to the common security and to progress."

The Senator is not in favor of unilateral military intervention. "There is a Castro column in every Latin American country—but the Organization of American States is the agency that can do most to rectify this situation."

"Good neighbors," he states, "stay out of each other's family affairs. But sometimes the affairs in one house reach such a point of tyranny that they can no longer be indifferent to the injustices and brutality emanating from it." END

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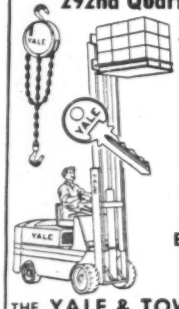

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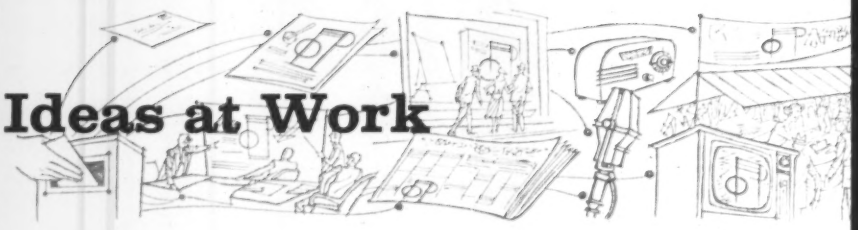


Ideas at Work

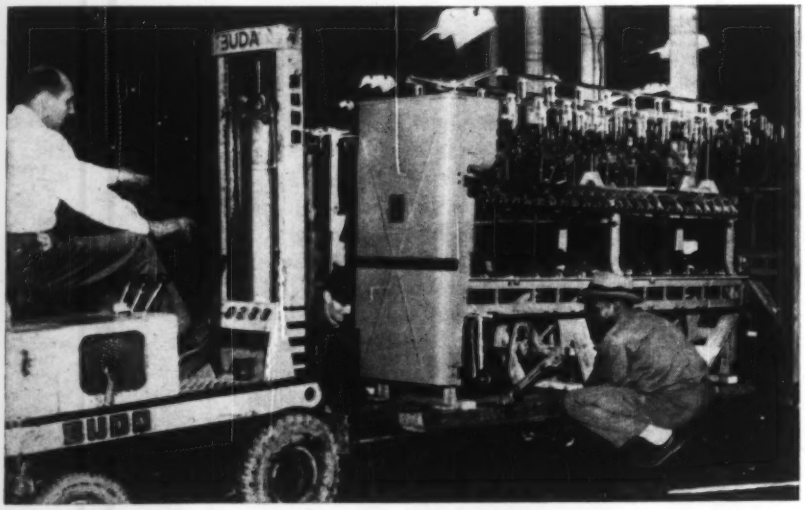
- *Solved: the jig-saw puzzle of installing new machinery. Pre-assembly cuts the costs, cures the headaches.*
- *How to keep the executive secretary happy: give her a chance at gold and glory*

Triumph of the "Turnkey"

From a distance, new production machinery looks to management like a dream come true, but before the boost in output materializes comes the nightmare of installation. When new machines are delivered, they're inevitably accompanied by an unwelcome clutter of boxes, packing crates, hardware, and tools. When actual installation begins, aisles get blocked, tempers fray, confusion mounts, and production dips.

On the premise that no customer willingly endures such torment, the Roberts Company of Sanford, N.C., now pre-assembles the production machinery it sells to its textile mill customers. Roberts launched the process, which it dubs a "Turnkey Operation," after one customer announced he wanted only to "turn a key" to start production.

Roberts' spinning frames, which run upward of 45 feet, are split into several unitized sections, adequately skidded and braced, then shipped



PRIOR TO SHIPMENT, *a unitized section of a spinning frame is loaded aboard a fork-lift truck by Roberts Company employees. The company estimates pre-assembling textile machinery saves Roberts 50 per cent in installation time and costs over conventional methods, leads to lower costs for customers, who can use the machine much sooner than if it were assembled after delivery.*

more than three-quarters complete in a Roberts van. Banished forever are scores of containers with countless machine parts packed in excelsior.

When the frames arrive, a minimum of floor space is needed for actual installation. Over 90 per cent of production is normally maintained on neighboring machines. Pre-assembly permits use of the new machine within days, rather than weeks.

"We've achieved substantial advantages through 'Turnkey'," says R. E. Pomeranz, Roberts president. "We've saved about 50 per cent on installation costs, and snared a competitive edge by lowering over-all costs for the customer."

Gal Friday's Reward

No one takes a waiter for granted: He gets a tip. So do cab drivers and some gas-pump jockeys. But how to reward that indispensable gal of the office, the executive's secretary? In an era of mounting paper work, growing demands on office skills, and chronic secretarial shortages, this is no mean problem.

At Chance Vought Corp., Dallas, members of the engineering department decided to honor superior secretaries with gold and glory—two rewards that will turn almost any girl's head. Twelve times a year, a department committee singles out a girl as "Secretary of the Month," awards the lucky office aide a gold-plated trophy. The statuette depicts a four-armed secretary (is there any other kind?) simultaneously taking dictation, typing letters, and answering the telephone.

The winner also gets a penholder embossed with a gilt replica of the statuette and stamped with the month of her "reign."

Engineers at Chance Vought trust their office aides to rise above personal feuds and office intrigues. Candidates for the monthly awards are nominated by the secretaries themselves. Each girl gets a printed ballot, writes in the name of the secretary she feels should be honored. Nominees are then judged on five major traits: cooperation, proficiency, attitude, tidiness, and loyalty.

The 18-inch trophy is kept only a month by the winner and then is passed along to the next successful candidate. A "Secretary of the Year," selected from among the monthly winners, keeps the trophy permanent-

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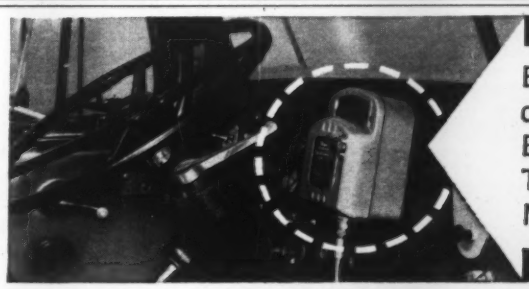

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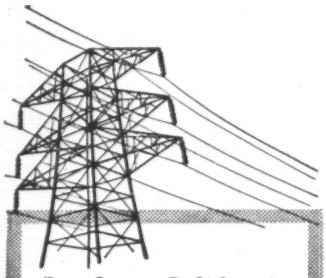
ly. The annual winner also gets a $50 savings bond.

Shareholders' Guests

There were no proxy battles or high-tension debates to catch the public's eye at the recent stockholder meeting of Campbell Soup Company, Camden, N.J. But Campbell President W. B. Murphy gained some extra mileage from the annual affair by inviting the teenage presidents of eighteen local Junior Achievement companies to attend. (Many JA "employees" in the Camden area will undoubtedly work for Campbell Soup one day, many have friends or relatives employed by the company.)

The young presidents watched the proceedings from start to finish, saw shareholders vote on four important proposals, and joined in quizzing Campbell officers on the company's operations. Reaction by Campbell stockholders to the young guests was favorable. Following the meeting, the youngsters gave reports on the proceedings to the teenage personnel of their own Junior Achievement companies. And, reports the soup company, its good-will gesture cost almost nothing at all. —J.J.F.



Southern California Edison Company

DIVIDENDS

The Board of Directors has authorized the payment of the following quart rly dividends:

ORIGINAL PREFERRED STOCK
Dividend No. 207
65 cents per share;

CUMULATIVE PREFERRED STOCK,
4.32% SERIES
Dividend No. 56
27 cents per share.

The above dividends are payable March 31, 1961, to stockholders of record March 5. *Checks will be mailed from the Company's office in Los Angeles, March 31.*

P. C. HALE, *Treasurer*

February 16, 1961

Edison

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TRY SHOOTING WITH OUR ADVERTISING JEWELRY AND WATCH THE RESULTS.

LOW AS 40c

ASK FOR COLOR FOLDER

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Do It Yourself!

New literature shows how you can SAVE Hundreds of $$$ On Short Runs • *Write for it now*

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"TOUCH STENCIL" your way to LOWER SHIPPING COSTS

Address and mark multiple carton shipments the fast, easy, low-cost Weber way!

If your company ships more than 4 cartons per order to the same address, you can address 50 to 60 cartons a minute with a Weber "Touch Stenciling" addressing system. What's more, one man can usually handle the entire addressing job!

Key to this cost-cutting system lies in the Weber stencil which can be typed, handwritten or prepared as part of the regular office paperwork.

Quick, easy, economical

Fill in consignee's name and address on a stencil by typewriter, or prepare stencil as a by-product of your standard order processing or bill-of-lading forms. It's an integrated procedure that not only eliminates addressing labels, cutting stencilboards, etc., but it adds profit-power to your data processing equipment.

Address a carton a second

Affixed to a lightweight Weber handprinter, the stencil enables your shipping clerks to "Touch Stencil" a carton-a-second with a fadeproof, waterproof address that meets all requirements of Marking Rule 6—Uniform Freight Classification. You eliminate shipment addressing errors with a marking system that saves hundreds—even thousands—of man-hours yearly. Once the job is done, discard the inexpensive stencil—there's nothing to save, nothing to file.

A system for every need

Weber addressing systems are tailored to your present order processing-shipping procedures. You don't need to change a single routine to install this modern method for addressing multiple carton shipments. Over 63% of America's efficiency-wise TOP 500 corporations* employ Weber marking systems in their shipping and product identification marking operations. Modernize your shipment operations the fast, low-cost Weber "Touch Stenciling" way!

Countless efficiency-wise companies rely on this modern method for marking and addressing multiple carton shipments. With "Touch Stenciling" one man can address a day's shipment in one hour.

Find out how your company can take full advantage of the many money-saving marking methods offered by Weber. Write for our booklet "Now, it's Touch Stenciling". It tells where and how Weber Marking Systems can increase the work-speed and efficiency of marking jobs in your plant.

*Detailed information available on request

HERE'S ALL THERE IS TO IT!

Versatile Weber stencils can be typed, handwritten or prepared on data processing equipment as part of regular order handling paperwork procedure.

The stencil and lightweight hand-printer give from 1 to 1000 clean, crisp impressions. "Touch Stencil" address directly on "ship to" forms printed on carton, or use a die-cut stencil which includes shipper's name and address, too.

Weber
MARKING SYSTEMS
Sales and Service in all principal cities

WEBER MARKING SYSTEMS
Dept. 30C, Weber Industrial Park
Mount Prospect, Illinois
Please send me a copy of your fact-filled booklet "Now, it's Touch Stenciling".
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Individual_____
Position_____
Address_____
City_____ Zone____ State_____

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with **WORKWALL**
plastic-finished Marlite partitions that move and work . . . in 9 different color-coordinated finishes!

It's the latest, greatest achievement in movable partitions! Comes in 5 wood-grain finishes and 4 pastel colors of stain-resistant, easy-to-care-for plastic-finished Marlite that you mix 'n match to your heart's content.

And Workwall is economical! Its one, exclusive patented system accommodates any elevation from as low as 42-inches to as high as 12-feet.

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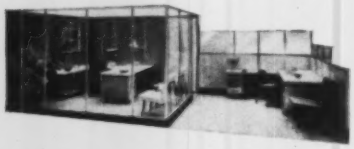
Write now for our free catalog . . . and see for yourself how high-style movable partitions can be individualized at a low, low price well within your budget! Coupon below brings catalog that tells all!



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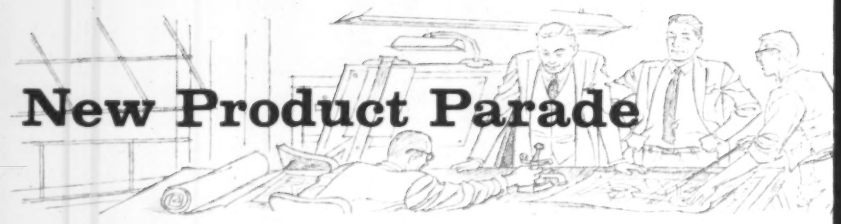
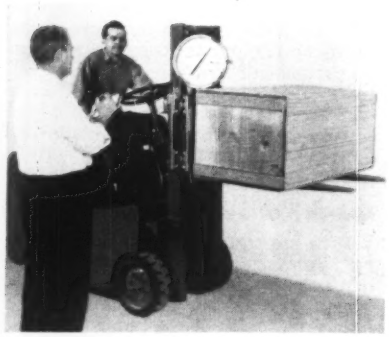
City_____ State_____

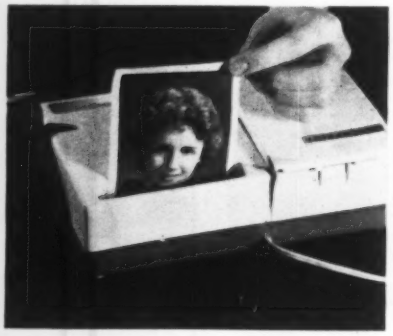
New Product Parade



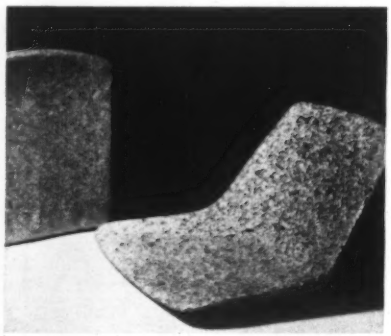
COMPACT COMMUNICATIONS: This transistorized two-way radio requires only 10 per cent of the power used by tube-type units, and is only ⅕ the size of average equipment in its class. Designed for mobility, the 4-channel unit will fit easily under any auto dash. *"Osborn 300," Osborn Electronic Sales Corp., 13105 S. Crenshaw Blvd., Hawthorne, Calif.*



MOBILE SCALE: This hydraulic, self-contained scale will mount on any fork lift truck and weigh materials while they're being moved. A reverse-reading dial simplifies feeding materials for batch orders, and a tare adjustment knob permits net weights to be read directly. *"Hydroscale," Hydroway Scales, Inc., 31302 Stephenson Highway, Madison Heights, Mich.*



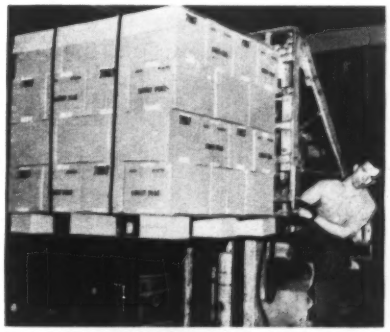
FAST PHOTOS: This photo printer will produce finished 3¼"x4¼" prints from negatives in ten seconds. The photo paper, which can be used in normal room light, is rolled through the developing unit and comes out as a dry, permanently fixed print. $19.95. *"Rollaprint," U.S. Photo Supply Co., Inc., 6478 Sligo Mill Road, Washington 12, D.C.*



MOLDED CHIPS: A new composition material is said to be suitable for intricate shapes, holds screws better than wood, is more resistant to moisture. Metal parts can be molded into the material, which is composed of wood chips, fiber glass, and polyester resin. *"Delwood," Gisholt Machine Company, 1245 East Washington Ave., Madison 10, Wisc.*

THIS MONTH: *Portable water pump; new molding material; materials handling aids.*

DRINK DISPENSER: This dispenser holds 50 per cent more liquid than case-and-bottle carriers of comparable weight. A self-contained air pressure system will dispense hot or cold beverages such as coffee, beer, or soda for concessionaires, hospitals, and other institutions. *"Midget Mix," Fen Mart, Inc., 150 N. Center Street, Reno, Nev.*



PAPER PALLET: This corrugated pallet will carry strapped loads as heavy as 10,000 pounds. The four-pound pallets can be attached to the load for shipping, and can be stored in one-tenth the space usually required. One man can assemble a pallet in minutes from cut and scored sheets. *"Econo-Pal," Packaging Corp. of America, 1632 Chicago Ave., Evanston, Ill.*

continued on page 138

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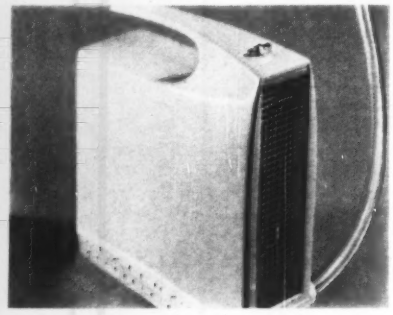
COMPTOGRAPH

continued from page 137

PORTABLE PUMP: This battery-operated pump will operate anywhere, pushing liquids at a rate of three gallons a minute. Compact and self-contained, it will run continuously for seven hours on one battery charge,



and its two batteries are recharged by plugging into standard 110-volt outlets. $69.50. *"Dexter Pump," Russell Harrington Co., River Street, Southbridge, Mass.*

FLAT FIXER: Flat tires can be repaired swiftly, without jacking up the wheel, by this simple new device. When a pressure can is attached to the tire valve, a repairing sealant is forced into the puncture while the tire is filled with pressurized air. $4.95. *"Repair 'n Air," Acme Specialty Co., 140 Halsey Street, Newark 2, N.J.*

TAPE SWITCH: A new electronic switch comes in the form of conductive tape, which is actuated by a touch anywhere along its length. It adheres to any surface, and connects with standard power outlets through a control box. Installations can be laid out to suit individual needs. *"Touch-Tape," Gardiner Electronics Co., 2545 E. Indian School Road, Phoenix, Ariz.*

ECONOMY OPENER: This fully automatic letter opener is designed to increase efficiency in small and medium-size offices, yet will handle heavy loads easily. The electric opener will feed and open up to 400 envelopes of all sizes in one minute. $129.95. *"Wombat," Redman Company, 6028 N. Cicero Avenue, Chicago.*

—E.G.

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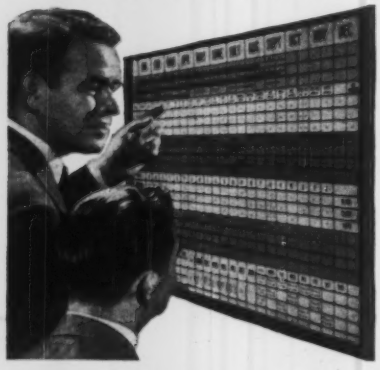

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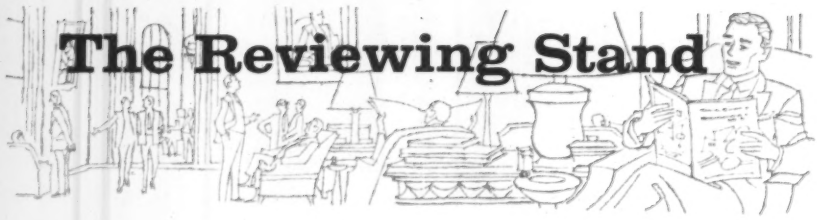

Too Little vs. Too Much

Mr. Khrushchev's recent blast at Russian farmers emphasizes the dramatic difference between agricultural production in the U.S.S.R. and in the U.S.A. Our problem is created by *plenty*. Russia's problem is scarcity. She must go outside of her borders to get necessary food, and we must go outside our borders to give it away.

Russia has less trouble trading for food than we have giving away the excess of our bulging warehouses and granaries. Still, we prefer the "too much" that is created by a more or less free economy to the "too little" produced by a rigorously controlled economy. If one man on a farm in the United States can feed 24 in the cities, then Mr. Khrushchev on his next visit here ought to spend a little more time with our dairymen and dirt farmers.

Brakes Can Be Dangerous

Doubt has an acid quality. A healthy doubt examines motives, questions opinions, and measures performance against promise. The faith that survives the challenge of doubt comes through the ordeal stronger for the acid test.

Doubt feeds on faith. It cannot survive on itself, for it degenerates into cynicism which is a parasitic and destructive force.

Blind optimism closes its eyes to obvious dangers. It gambles with disaster on the wrong side of the road, and believes that traffic signals are for the other fellow. But habitual pessimism refuses to believe its own senses. It devotes its energies to blocking the progress of people who want to go places.

Progress needs both driving power and braking power, but it won't get anywhere unless the drive is stronger than the brake. And in business when the time comes for decision, the calculated "yes" must be more frequent than the cautious and analytical "no."

Deeds, Not Words

When a politician with a tough rind over his conscience was challenged by a critic for the waste and graft in the construction of a city hospital, he answered with a shrug, "Maybe I should build jails first and hospitals afterward." This neat bit of sophistry glosses over an interesting situation in which, because of the venal ambitions of bad men entrusted with good works, the benefits to society are merely accidental.

This form of pragmatism has its ethical limits. Jails are still necessary institutions for men who betray public trust or private responsibility. The early history of transportation—keel, wheel, and wing—is replete with the selfish adventures of men who accomplished public good for private greed. Yet whether in public office or business adventure, the selfish men who have contributed to progress despite their private abuse of confidence are far fewer than the less publicized men who served the community and themselves afterward. Dedicated public servants are still active, if less vocal or visible than the freeloading adventurers.

From an ethical point of view, there has been some advance in public behavior. The best evidence of it is the candor with which behavior is discussed. The improvement is due not only to self-discipline and an awareness of legal restraints but also to a clearer conception of management responsibility.

There are, however, wide areas where the shadow of misconduct hangs over public and private enterprise. Money is an amoral instrument, and like science serves good and evil alike. There's no such thing as dirty money: the stain is only on the hand that holds it as giver or taker. The place to start ethical hand-cleansing is at the top—and a bit of old-fashioned moral detergent might make it easier for leaders to practice what they preach. —A.M.S.

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